

POTENTIAL ENERGY CRISIS IN THE WINTER OF 2000

HEARINGS BEFORE THE COMMITTEE ON GOVERNMENT REFORM HOUSE OF REPRESENTATIVES ONE HUNDRED SIXTH CONGRESS SECOND SESSION

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POTENTIAL ENERGY CRISIS IN THE WINTER OF 2000

WEDNESDAY, SEPTEMBER 20, 2000

HOUSE OF REPRESENTATIVES,
COMMITTEE ON GOVERNMENT REFORM,
Washington, DC.

The committee met, pursuant to notice, at 1:07 p.m., in room 2154, Rayburn House Office Building, Hon. Dan Burton (chairman of the committee) presiding.

Present: Representatives Burton, Gilman, Morella, Shays, McHugh, Souder, LaTourette, Biggert, Ose, Waxman, Kanjorski, Maloney, Norton, Kucinich, Tierney, Allen, Ford, and Schakowsky.

Staff present: Kevin Binger, staff director; James C. Wilson, chief counsel; David A. Kass, deputy counsel and parliamentarian, Sean Spicer, director of communications; Josie Duckett, deputy communications director; Nat Weinecke, professional staff member; Robert Briggs, clerk; Robin Butler, office manager; Michael Canty, legislative assistant; Leneal Scott, computer systems manager; John Sare, staff assistant; Maria Tamburri, assistant to chief counsel; Corinne Zaccagnini, systems administrator; Phil Schiliro, minority staff director; Phil Barnett, minority chief counsel; Kristin Amerling, minority deputy chief counsel; Ellen Rayner, minority chief clerk; and Jean Gosa and Earley Green, minority assistant clerks.

Mr. BURTON. Good afternoon. The Committee on Government Reform will come to order.

A quorum being present, we are ready to conduct our business. I ask unanimous consent that all Members' or witnesses' written opening statements will be included in the record. And without objection, so ordered.

[The prepared statement of Hon. Helen Chenoweth-Hage follows:]

Statement of Congressman Helen Chenoweth-Hage
Committee on Government Reform
 2154 Rayburn House Office Building
 September 20, 2000

Thank you Mr. Chairman. I would like to take the opportunity to express my genuine and heartfelt thanks to both the Chairman and the Committee for holding today's hearing on *"The Potential Energy Crisis in the Winter of 2000."* This is an issue that has direct relevance to the health of our country and the future of our economy. More importantly, the current energy policy has a direct impact on my own state's economy.

Mr. Chairman, Idaho is not a state where one drives short distances. Virtually every drive in Idaho requires a considerable amount of fuel. Earlier, in June of this year, this Committee held hearings to address the rising fuel prices and their relationship to the reformulated gas regulations. Now, we are meeting again to plan for a potential energy crisis that could be avoided if this country had a sound and responsible energy policy.

The facts are undeniable and are a cause for real concern. Because of the left-wing environmental policies of this administration, more forests burned than ever were logged in the history of our nation. The allegiance shown for extremist environmental policies knows no bounds with respect to this administration. No expansion of domestic drilling, reformulated gas regulations, and a lack of action in forcing OPEC's hand have all contributed to what increasingly looks like a severe energy crisis this winter.

This is inexcusable and would have been avoidable if this administration had developed a sound energy policy. Instead, our Department of Energy has been mired in scandal and internal problems for the last two years. I have no doubt that Energy Secretary Richardson has tried to address the problems we face, yet what can we expect from only one man who is presiding over an agency that is imploding before our eyes.

Mr. Chairman, I look forward to the testimony that we will hear from our witnesses today. All too often, this government overlooks the average citizen in its deliberations. This is not what our Founders intended for our great Republic. However, this Committee is the exception to the rule. Mr. Chairman, this Committee has consistently addressed the problems that our regular citizens have with the government. It is with respect and appreciation that I thank the Chairman for these hearings today. It is an important and timely topic.

Thank you Mr. Chairman.

Mr. BURTON. I ask unanimous consent that all articles, exhibits and extraneous or tabular material referred to be included in the record. And without objection, so ordered.

I ask unanimous consent that questioning in this matter proceed under clause 2(j)(2) of House rule 11 and committee rule 14 in which the chairman and ranking minority member allocate time to the members of committee as they deem appropriate for extended questioning, not to exceed 60 minutes, equally divided between the majority and minority.

Mr. WAXMAN. Reserving the right to object, and I only do this to ask the chairman, we have as one of our colleagues who is the full committee chairman of the International Relations Committee, and I understand he has a scheduling conflict. Could I ask unanimous consent that he be permitted to give the first opening statement, and then you and I will proceed with our opening statements?

Mr. BURTON. That will be fine with me. He is very appreciative, but he wants to wait just a few minutes.

I will proceed, and then we will get back to you just as quickly as we can. And I thank the ranking minority member for his kindness. We have all this new technology, and we are having all sorts of glitches.

Today we are holding our second day of hearings on problems in our energy markets. Tomorrow we will hold our third. Last June we focused on a very narrow problem. Prices that were spiking for gasoline in the Midwest. This week we are going to step back and take a look at the bigger picture.

The big picture doesn't look very good right now. We continue to have problems in our gasoline markets. We have problems in our natural gas markets. We have problems in our home heating oil and electricity markets. I'm not aware of any segment of our energy markets where we are not having problems.

The fact of the matter is that energy prices are soaring, and every American family is going to feel the impact in the very near future. We have to have a strong energy policy if we're going to deal with these problems, and right now we simply don't have one. The signs of a looming energy crisis are all around us. Look at what happened to gasoline prices this summer, and now the price of oil is creeping up to close to \$40 a barrel. And if you go back to 18 months, it was closer to \$10 a barrel. That is a huge quantum leap in just a short period of time.

Take a look at electricity. In San Diego, electricity rates have doubled. In some cases they have even tripled. This year the State of California has had 17 stage 2 alerts. That means that the level of electricity in the wires was so low that some customers had to have their power turned off 17 times around the State of California. In all of 1999, there was only one stage 2 alert in that State. On June 14th, in San Jose, CA, the power went out. There wasn't any electricity. They had a blackout for 4 hours. We are going to hear today from a businessman who will tell you what happened to his company.

In Montana, electricity rates have gone up 500 percent for industrial users. We are going to hear from a witness today who had to shut down his business and lay off 300 people because they couldn't pay their electricity bills.

Take a look at natural gas. The cost of natural gas has tripled—tripled since March of last year. Prices are going to go up more this winter. What impact is that going to have on senior citizens on fixed incomes? Take a look at home heating oil.

Prices of home heating oil in New England spiked to more than double their normal last winter. Going into this fall, inventories are at a 5-year low. Home heating oil is so expensive that distributors are going into winter with empty storage tanks. That spells real trouble if we have a real cold winter. We're going to hear from one of those distributors today.

All of these things are like cracks in the dike. They are telling us loud and clear that we have a system that is in serious trouble. It looks to me like we're headed to an energy crisis this winter and another one next summer. We need to have a strong energy policy to deal with these problems. Right now we simply don't have one.

Praying for a mild winter won't cut it. Pleading with OPEC to lower prices won't cut it. The first step is to try to figure out what's causing these problems. All of these areas there are local factors you can point to. A breakdown in the Explorer pipeline this summer set off the gasoline price spike in Chicago. In California and Montana, deregulation of electric utilities played a role. Some people think there is price gouging going on. We're going to look into that as well.

However, I think that if you look at each of these areas, electricity, natural gas, home heating oil, there is a deeper underlying problem. Demand for energy has been growing with our growing economy, and the supply of energy simply is not keeping up. When demand starts bumping up against supply, that's when the cracks in the dike start forming.

Let's take a look. There has not been a single new oil refinery built in this country in 25 years. 25 years. If you could build a new refinery, it would be almost impossible to build a new pipeline to get your product to market because of environmental regulations and other regulations. Look at the electricity situation in San Francisco. The population of the Bay area has grown 50 percent in the last 20 years, yet not one new power plant has been built to serve the area since 1982. We are going to talk today to a California executive who builds power plants about all of the problems they are having in that area.

Secretary Richardson testified here before us in June. He summed up the situation pretty well. He said, "We have dramatically increased demand; however, domestic oil production and domestic refinery capacity has not kept up with that demand."

Why not? State and local laws play a part, but a big part of the problem is Federal regulation. Take a look at the oil business. Under all of the requirements of the Clean Air Act, it simply is not economical to build a new refinery in this country. You can't do it. In 1982, there were 231 refineries in the United States. Today, that's dropped to 155, and yet demand keeps rising.

Yet at the same time, under the reformulated gasoline provisions of the Clean Air Act, refineries have to make as many as 15 different blends of gasoline in the summertime, so we have fewer refineries with much more demand by the government and by the population as far as the need is concerned. The result is that you

have a system that is straining at its limits to meet demand. Under those conditions, all it takes is one small disruption to set off a crisis. And at the end of the summer, after struggling to meet the demand for gasoline all summer, they're not prepared for the home heating oil season.

This isn't a problem that is going to go away by itself. It is going to get worse each year as demand keeps growing and supply doesn't or can't keep pace. At the same time, the EPA has a whole series of new rules in the pipeline. Now, I'm not saying that we shouldn't have good environmental laws. We certainly should. We all want to breathe clean air. But we also want to keep warm in the winter. What I'm saying is that there's got to be some balance. We have to weigh the costs against the benefits, because if we keep going like we are, we are headed for a meltdown somewhere along the way.

We have a number of witnesses before us today who know a lot more about the energy business than we do. We have Mr. Simon from Exxon Oil. We have Mr. Slaughter from the Refiners Association. We have Mr. Hildebrand from Calpine. We have an expert energy analyst on the very first panel.

I'd like to ask all of our witnesses today to do two things: First, tell us what we in Congress can do to tackle some of these problems. And second, tell us what the administration can do.

We have 44 Members of the Congress on this committee. All won't be here today, but many of us will, and we're listening. Secretary Richardson will be testifying tomorrow. Administrator Browner of the EPA will be testifying tomorrow. Tell us what you need from us and the administration to avoid disruptions, and we'll take up those issues with the people who have something to do with it in the administration tomorrow morning—tomorrow afternoon.

The bottom line is this: we can't bury our heads in the sand anymore. We have to have a strong energy policy. We have become more self-sufficient and less reliant on foreign oil. We have been talking about this since the gasoline crisis 25 years ago or 20 years ago. Under this administration we have not had a strong energy policy. When Secretary Richardson was here in June, he said we needed more tax credits for fuel efficiency. He said we needed more funding for alternative energy sources. Well, I think we all support those things, but windmills and solar power aren't going to solve the problem.

We need a policy that would help us become more self-sufficient. We have enormous deposits of oil and gas that are currently off limits. We need to take another look at that. We need to review some of these new EPA rules coming down the pike to see if some additional flexibility isn't in order. If we don't step up to the plate, we are just going to keep lugging from one crisis to another like we have been doing for the last year and even before that.

So to our witnesses, thank you for being with us today, and we'll look forward to your testimony. And with that, I will yield to my colleague, if it is all right with you, Mr. Waxman, the chairman of the International Operations Committee, for his opening statement.

[The prepared statement of Hon. Dan Burton follows:]

**Opening Statement
Chairman Dan Burton
Committee on Government Reform
“Potential Energy Crisis in the Winter of 2000”
September 20, 2000**

Good Afternoon.

Today, we are holding our second day of hearings on problems in our energy markets. Tomorrow, we will hold our third. Last June, we focused on a very narrow problem -- price spikes for gasoline in the Midwest. This week, we're going to step back and take a look at the bigger picture.

The big picture doesn't look very good right now. We continue to have problems in our gasoline markets. We have problems in our natural gas markets. We have problems in our home heating oil and electricity markets. I'm not aware of any segment of our energy markets where we're not having problems.

The fact of the matter is that energy prices are soaring, and every American family is going to feel the impact. We have got to have a strong energy policy if we're going to deal with these problems, and right now, we don't have one.

The signs of a looming energy crisis are all around us:

- Look at what happened to gasoline prices this summer. And now the price of oil is creeping up toward \$40 a barrel. At the beginning of last year, it was \$10 a barrel.

Take a look at electricity:

- In San Diego, electricity rates have doubled. In some cases they've tripled.
- This year, the State of California has had 17 Stage Two Alerts. That means that the level of electricity in the wires was so low that some customers had to have their power turned off -- 17 times around the state. In all of 1999, there was only one Stage Two Alert.
- On June 14 in San Jose, California, the power went out. There wasn't any electricity. They had a blackout for four hours. We're going to hear today from a businessman who will tell us what happened to his company.
- In Montana, electricity rates have gone up 500 percent for industrial users. We're going to hear from a witness today who had to shut down his business and lay off 300 people because they couldn't pay their electric bills.

Take a look at natural gas:

- The cost of natural gas has tripled since March of last year. Prices are going to go up more this winter. What impact is that going to have on senior citizens with fixed incomes?

Take a look at home heating oil:

- Prices of home heating oil in New England spiked to more than double their normal level last winter. Going into the fall, inventories are at a five-year low. Home heating oil is so expensive that distributors are going into the winter with empty storage tanks. That spells real trouble if we have a cold winter. We're going to hear from one of those distributors today.

All of these things are like cracks in the dike. They're telling us loud and clear that we have a system in serious trouble. It looks to me like we're headed for an energy crisis this

winter, and another one next summer.

We need to have a strong energy policy to deal with these problems. Right now, we don't have one. Praying for a mild winter won't cut it. Pleading with OPEC to lower prices won't cut it. I think we've had eight years of neglect in this area under the Clinton Administration.

The first step is to try to figure out what's causing these problems. In all of these areas, there are local factors you can point to. A breakdown in the Explorer pipeline this summer set off the gasoline price spike in Chicago. In California and Montana, deregulation of electric utilities has played a role. Some people think there is price gouging going on.

However, I think that if you look at each of these areas -- electricity, natural gas, home heating oil -- there is a deeper, underlying problem. Demand for energy has been growing with our expanding economy, and the supply of energy isn't keeping up. When demand starts bumping up against supply, that's when the cracks in the dike start forming. Take a look:

- There hasn't been a single new oil refinery built in this country in 25 years -- 25 years!
- Even if you could build a new refinery, it would be almost impossible to build a new pipeline to get your product to market.
- Look at the electricity situation in San Francisco: The population of the bay area has grown 50 percent in the last two decades. Yet not one new power plant has been built to serve that area since 1982. We're going to talk today to a California executive who builds power plants about all of the problems they're having in that area.

Secretary Richardson testified before us in June. He summed up the situation pretty well.

He said that we have *"dramatically increased demand. However, domestic oil production and domestic refinery capacity has not kept up with that demand."*

Why not?

State and local laws play a part. But a big part of the problem is Federal regulation.

Take a look at the oil business. Under all of the requirements of the Clean Air Act, it simply isn't economical to build a new refinery in this country. You can't do it. In 1982, there were 231 refineries in the United States. Today, there are 155. Yet at the same time, under the reformulated gasoline provisions of the Clean Air Act, refiners have to make as many as 15 different blends of gasoline in the summertime.

The result is that you have a system that's straining at its limits to meet demand. Under those conditions, all it takes is one small disruption to set off a crisis. And at the end of the summer, after struggling to meet the demand for gasoline all summer, they're not prepared for the home heating oil season.

This isn't a problem that's going to go away by itself. It's going to get worse each year as demand keeps growing and supply doesn't keep pace. At the same time, the EPA has a whole series of new rules in the pipeline.

Now I'm not saying that we shouldn't have good environmental laws. We all want to breathe clean air. But we also want to keep warm in the winter. What I'm saying is we've got to have some balance. We've got to weigh the costs against the benefits, because if we keep going on like we are, we're headed for a meltdown somewhere along the way.

We have a number of witnesses before us today who know a lot more about the energy business than we do. We have Mr. Simon from Exxon/Mobil. We have Mr. Slaughter from the Refiners Association. We have Mr. Hildebrand from Calpine. We have an expert energy analyst on the first panel.

I'd like to ask all of our witnesses today to do two things. First, tell us what we in Congress can do to tackle some of these problems. And second, tell us what the Administration can do. We have forty-four Members of Congress on this Committee. We won't all be here today, but many of us will, and we're listening. Secretary Richardson will be testifying tomorrow. Administrator Browner will be testifying tomorrow. Tell us what you need from us and from the Administration to avoid disruptions, and we'll take up those issues with them tomorrow.

The bottom line is this -- we can't bury our heads in the sand anymore. We have to have a strong energy policy. We have to become more self-sufficient and less reliant on foreign oil. Under this Administration, we haven't had a strong energy policy.

When Secretary Richardson was here in June, he said we needed more tax credits for fuel efficiency. He said we needed more funding for alternative energy sources. Well, I support those things. But windmills and solar power aren't going to solve our problems.

We need a policy that will help us become more self-sufficient. We have enormous deposits of oil and gas that are off-limits. We need to take another look at that. We need to review some of these new EPA rules coming down the pike to see if some additional flexibility isn't in order. If we don't step up to the plate, we're just going to keep lurching from one crisis to another like we've been doing for the last year.

So to our witnesses: Thank you for being here today. If you have reasonable, responsible suggestions, give them to us today, and we'll discuss them with Secretary Richardson and Mrs. Browner tomorrow.

Thank you. I now yield to Mr. Waxman for his opening statement.

Mr. GILMAN. Thank you, Chairman Burton, for today's hearing, and I want to thank our ranking minority member, Mr. Waxman, for yielding some time to me and allowing me to go out of order. I also want to thank the witnesses for their willingness to appear before our committee to discuss how the turmoil in energy markets throughout the country, the impending home heating crisis in the Northeast, and the constraints and limitations by State and Federal regulations have been placed on the market sectors of the energy market.

Administration officials have given many reasons why the high costs of energy have taken place, but what it comes down to is that people throughout our Nation are suffering from exorbitant energy prices. With oil at record prices, our constituents and our businesses are hurting, they're frustrated, especially those who are on fixed incomes.

How is the independent heating oil business in my district doing? Well, let's take a look at one of my suppliers, Mr. Crawford. He is the proprietor of E&A Crawford Heating Oil in my district, was paying 45 cents for heating oil in September 1999. He is now forced to purchase the same at \$1.06 a gallon, and on August 1st, the supplying Newburg rack price was 78.8 cents a gallon and now has surpassed \$1.10 a gallon, with a cost of more than \$1.40 to his customers, and all of that before we are faced with a high demand of the winter months.

Mr. Crawford has been in the heating oil business for more than 30 years. He's losing customers to the larger companies that can provide heating oil cheaper by buying it in bulk, and he's been writing to me that the price of the Newburg rack—as he was writing to me, the price of the Newburg rack heating oil rose 6 cents on that day for the same oil in the same tank as the day before.

Mr. Crawford places a lot of the blame on the mercantile exchange traders who wouldn't know a barrel of oil if they fell on one, yet they continue to drive the price up as gamblers and speculators. His pain and frustration is being felt throughout our district, our State, and our Nation. He asked the same questions that many people from all over that are inundating our offices are asking: How can we let this happen? Why has the President not done more to lower the prices of oil? And since oil and its derivatives are so vital, how did it ever get on the exchange where it is subject to blatant manipulation?

Mr. Crawford is not alone with his frustration and his worries about the rising price of energy. The prices of electricity have also increased as a result of the high cost of crude oil and natural gas which power the massive generators that produce the energy products. Couple the oil crisis with deregulation and, once again, my constituents and the American people face a great deal of suffering in the months ahead.

We are all being inundated with calls regarding the drastic increases that our constituents find on their utility bills, which are up 30 to 40 percent from last year. The New York Times in late August reported that people all over the New York region have denounced energy deregulation as either, "a failure or a fraud."

Edward Smeloff, a former utility official, director of a research group on electricity in Pace University, stated, "In the past we

trusted that State regulators who were appointed by our elected officials were watching out for us, which may or may not have been true. The new model is figure it out for yourself."

Only a few of energy competitors have entered the New York market, which does not leave consumers with much choice in a provider. Senior executives in a major energy concern in my district state that the deregulated market is not the reason for the high cost of electricity. They attribute the high cost of energy to the excessive costs of crude oil and natural gas which are keeping the prices of electricity excessively high.

The executives also point to supply and demand, where the demand has increased more than 30 percent, with a supply at 6 percent, as contributing factors to the higher prices.

Natural gas at more than \$5.35 per mmbtu is also excessively high. A recent article in our local newspaper, Times Herald Record, states that supplies of U.S. natural gas has been declining since the 1990's, with energy firms finding it cost-prohibitive to produce natural gas. What makes it worse, reported that newspaper, is that production is up a scant 1 percent, while demand for the product is off the charts, as it is needed to generate electricity as utilities switched from coal and nuclear power plants.

Analysts are painting a bleak picture, "If we have a normal winter, we are going to see potentially astronomical natural gas prices, much higher than we see today, reported David Chang, a senior energy trader for the Bank of America in New York." The Energy Information Agency paints a similar picture stating, "The high price of natural gas reflects the intense competition between current and future uses of gas supplies and has been a disincentive to increasing storage injections." The agency further reports that the total amount of natural gas in storage is 65 percent full, which implies that stocks are lower 18 percent from last year.

What all of this tells our constituents, the people of my State and around our Nation is that the administration has failed to create and implement a coherent strategic short- and long-term energy policy and is not working with the private sector to craft an energy policy that helps the hard-working people of our Nation.

This is how the current energy crisis is affecting the people and businesses in my district, Mr. Chairman, and we look forward to discussing these issues and potential solutions with our expert witnesses who are here today. And I thank you, again, for arranging this hearing.

Mr. BURTON. I thank Mr. Waxman once again for allowing you to go ahead since you have another meeting.

Mr. GILMAN. And I appreciate that, Mr. Waxman.

Mr. BURTON. Mr. Waxman.

Mr. WAXMAN. Thank you, Mr. Chairman. And I was pleased to accommodate Congressman Gilman.

Today's hearing is about a topic that has been neglected by the Congress too long, energy policy. There is bipartisan agreement that our Nation faces serious energy problems. The price of crude oil has risen dramatically over the past year. Last winter in the Northeast, the cost of heating a home with oil soared, and prices could even be higher this year.

And this summer in California, consumers in San Diego have faced electricity bills that are two to three times higher than normal, and other areas of the State have experienced brownouts.

Unfortunately, there is no bipartisan agreement about the cause of these problems and how we should address them. Republican leaders blame the Clinton administration. Some have even claimed that the Clean Air Act, and other essential environmental laws, are the cause of high energy prices. These theories make good politics, but they are basically nonsense. The fundamental problem that our Nation faces is that we are too dependent on fossil fuels in general and oil in particular. This leaves us vulnerable to manipulation by OPEC and threatens our economic and national security. And we are entering the 21st century with an antiquated electric utility infrastructure.

These are not new problems. Gas lines in the 1970's showed us the dangers of excessive reliance on oil. But a combination of factors, lower energy prices, antiregulation sentiment in the administrations in the 1980's and in Congress in the 1990's, and a growing economy have conspired to halt our progress toward alternative fuels, renewable energy, and energy independence.

In fact, today we consume more oil, more gasoline, and more diesel fuel than we did 20 years ago. The Clinton administration has proposed modest steps to reduce our dependence on oil and other fossil fuels. The administration has proposed tax credits to spur energy efficiency and research and development partnerships with the auto industry to develop a new generation of clean vehicles. And the administration has sent Congress electricity restructuring legislation. But even these needed measures have met resistance in the Congress. As a result, we have not formulated or implemented the kind of comprehensive energy policy our Nation needs.

The last time Congress enacted a comprehensive energy legislation was 1992. In recent years, the Republican leadership in Congress has even gone so far as to call for the abolition of the Department of Energy and the sale of the Strategic Petroleum Reserve.

The States, too, have made mistakes. With hindsight, the deregulation efforts in California may have serious flaws, allowing energy suppliers to manipulate the market and raise prices through the roof. But while we face serious problems today, the future could be much brighter. Our energy policy may have stagnated, but technology has not. New energy technologies are on the horizon that can strengthen our economy, protect our environment, and lessen our dependence on oil and other fossil fuels.

Fuel cells, for instance, have made enormous strides in recent years. This technology combines hydrogen with oxygen via an electrochemical process to generate electricity without emitting any air pollution or greenhouse gases. The costs of these technologies are dropping, and prototypes have been developed that can run automobiles or light buildings. And since fuel cells do not have to run off gasoline, fuel cells can reduce our dependence on foreign oil.

It won't be easy to shift course. The big oil and gas companies are making billions off of today's high prices, and they hire countless lobbyists and give millions in campaign contributions to preserve the status quo. But if we have the political will, we can craft a sound energy policy for our children, one that relies on new tech-

nologies, energy efficiency, and renewable energy to create new industries and jobs, provide greater energy independence and protect the global environment.

The energy crisis of the 1970's showed us the importance of developing forward-looking energy policies, but unfortunately we squandered that opportunity to reduce our dependence on oil and implement needed changes in U.S. energy policies. I hope we won't repeat that mistake once again.

I look forward to hearing the witnesses—the testimony of the witnesses and working with my colleagues, Democrat and Republican alike, to address what is a national issue and calls on us to put partisanship aside, to use our best judgment and to try to be constructive, not just point fingers at each other. Thank you.

[The prepared statement of Hon. Henry A. Waxman follows:]

Statement of Rep. Henry A. Waxman
September 20, 2000

Today's hearing is about a topic that has been neglected by Congress for too long: energy policy.

There is bipartisan agreement that our nation faces serious energy problems. The price of crude oil has risen dramatically over the past year. Last winter in the Northeast, the cost of heating a home with oil soared, and prices could be even higher this year.

And this summer in California, consumers in San Diego have faced electricity bills that are two to three times higher than normal, and other areas of the state have experienced brownouts.

Unfortunately, there's no bipartisan agreement about the cause of these problems and how we should address them.

Republican leaders blame the Clinton Administration. Some have even claimed that the Clean Air Act and other essential environmental laws are the cause of high energy prices.

These theories may make for good politics, but they're basically nonsense.

The fundamental problem that our nation faces is that we are too dependent on fossil fuels in general -- and oil in particular. This leaves us vulnerable to manipulation by OPEC and threatens our economic and national security. And we are entering the 21st century with an antiquated electric utility infrastructure.

These are not new problems. Gas lines in the 1970s showed us the dangers of excessive reliance on oil.

But a combination of factors -- lower energy prices, anti-regulation sentiment in the Administration in the 1980s and in Congress in the 1990s, and a growing economy -- have conspired to halt our progress towards alternative fuels, renewable energy, and energy independence.

In fact, today we consume more oil, more gasoline, and more diesel fuel than we did twenty years ago.

The Clinton Administration has proposed modest steps to reduce our dependence on oil and other fossil fuels. The Administration has proposed tax credits to spur energy efficiency and R&D partnerships with the auto industry to develop a new generation of clean vehicles. And the Administration has sent Congress electricity restructuring legislation. But even these needed measures have met resistance in Congress.

As a result, we haven't formulated or implemented the kind of comprehensive energy policy our nation needs. The last time Congress enacted comprehensive energy legislation was 1992. In recent years, the Republican leadership in Congress has even gone so far as to call for the abolition of the Department of Energy and the sale of the Strategic Petroleum Reserve.

The states, too, have made mistakes. With hindsight, the deregulation efforts in California may have serious flaws, allowing energy suppliers to manipulate the market and raise prices through the roof.

But while we face serious problems today, the future could be much brighter. Our energy policy may have stagnated, but technology hasn't. New energy technologies are on the horizon that can strengthen our economy, protect our environment, and lessen our dependence on oil and other fossil fuels.

Fuel cells, for instance, have made enormous strides in recent years. This technology combines hydrogen with oxygen via an electrochemical process to generate electricity without emitting any air pollution or greenhouse gases. The costs of this technology are dropping, and prototypes have been developed that can run automobiles or light buildings. And since fuel cells do not have to run off of gasoline, fuel cells can reduce our dependence on foreign oil.

It won't be easy to shift course. The big oil and gas companies are making billions off of today's high prices. And they hire countless lobbyists and give millions in campaign contributions to preserve the status quo.

But if we have the political will, we can craft a sound energy policy for our children -- one that relies on new technologies, energy efficiency, and renewable energy to create new industries and jobs, provide greater energy independence, and protect the global environment.

The energy crisis of the 1970s showed us the importance of developing forward-looking energy policies. But unfortunately, we squandered that opportunity to reduce our dependence on oil and implement needed changes in U.S. energy policies.

I hope we won't repeat that mistake once again.

Mr. BURTON. Do any other Members have opening statements, or should we go ahead? If you have an opening statement, that's fine.

Mrs. BIGGERT. Thank you, Mr. Chairman. I represent a suburban Chicago district, and as many of you know, the Chicago area was hit with the highest gasoline prices in the Nation earlier this summer. Unfortunately for Illinoisans and consumers across the Nation, gasoline prices will not be the only energy cost putting a strain on our pocketbooks this year.

We're told now in the press reports and by utility companies to get ready for the next hit: higher home heating bills. And who is going to be hit? Nationwide, 55 percent of all homes have natural gas service, but in my district in Illinois, approximately 95 percent of all homes are able to get natural gas service. It is extremely disconcerting that this country is experiencing a natural gas price increase during the summer months, long before the traditional winter increase in demand and price. And for those of us living in the Midwest where the winters are usually long and harsh, rising energy costs are a cause for serious concerns.

The problems that we are likely to face this winter are a symptom of the administration's piecemeal, some might say failed, others might say nonexistent energy policy. It is no secret that the administration has ignored and shunned coal and nuclear power. They threatened to tear down hydroelectric dams, which are one of the cleanest sources of electricity today.

What is to compensate for increased electricity demand and the gradual loss of generating capacity from nuclear and hydropower? The reality of the situation is that renewable sources of energy have a long way to go before they even come close to compensating for nuclear and hydropower. What is the only clean source of energy that can meet the administration's high standards and the increased demand for electricity while at the same time ensuring the reliability of the electricity grid? Well, it's natural gas.

In short, the administration's narrowly focused energy policy contains so few options that it has created a monster. That explains why 96 percent of the power plants currently being built are natural-gas-fired power plants. We know this all too well in Illinois, where 400 to 800-megawatt natural-gas-fired peaker plants are sprouting like mushrooms across the suburbs only to be used for a few months during peak periods of demand. As a result, the natural gas typically purchased in the summer for storage and later used for the winter is instead being used for electricity generation.

As one energy expert put it, electric utilities are the new 800-pound gorilla of the natural gas market. And what does this mean for the consumer? Well, NICOR Gas, the largest natural gas distribution company in Illinois servicing my constituents and 1.9 million residents in the northern third of the Illinois, estimates that the heating bills could be as much as 50 percent higher than last year. In real dollars this means that a normal winter could push the cost of natural gas for average residential customers in Illinois up to \$610 or more for the months of October through March. Last year the cost was \$410, a difference of at least \$200.

Local papers have been publicizing NICOR's warnings. Even the Chicago Tribune picked up on the rising public concern about natu-

ral gas prices this winter. An editorial in its August 14th edition was entitled: Start Practicing Your Outrage.

One of the last paragraphs of this editorial summed it up. It reads: "It will cost more to heat your home this winter. This will be a burden, but it will not be the work of sinister forces. It will be supply and demand at work."

It appears that the administration has ignored the consequences of its supply limiting actions. They have taken away all the options save one: natural gas. Small wonder then that we were left with but one option: sky-high prices in energy markets.

Thank you very much, Mr. Chairman.

Mr. BURTON. Thank you Mrs. Biggert.

Ms. Schakowsky.

Mrs. Maloney, go ahead.

Mrs. MALONEY. Thank you. Thank you, Mr. Chairman.

After a summer of high gas prices for consumers, the outlook for winter energy prices looks even more grim. As oil prices soar, and heating oil inventories remain dangerously low, Americans are facing a catastrophic situation. A further alarming part of this is that even as families continue to bear the burden of high oil prices, the oil industry is enjoying record profits.

As Americans suffer, the industry has seen its profits soar. While enjoying these record profits, I have been alarmed to see industry lobbyists hard at work here in Congress to further improve their bottom lines. Two recent examples currently, right now, before Congress best illustrate this point.

First, I want to take this opportunity to bring to the attention of the committee members an issue that I believe will have a major impact on future energy prices. The full House may soon consider legislation that has passed the Banking, Commerce and Agricultural Committees dealing with financial and energy derivatives products. The Commodities Futures Modernization Act of 2000 would have the effect of allowing trading in energy futures to move off of public exchanges and onto private electronic exchanges, out of sight, where the public will have no ability to monitor changes in energy prices.

Now is not the time to give big oil the gift of relieving the industry from the public scrutiny of public exchanges.

I offered an amendment in the Banking Committee that would have deleted this provision and moved the House bill closer to the approach that Senator Lugar has taken in the Senate. Unfortunately, despite bipartisan support, the amendment failed. Without my amendment, trading in energy contracts for future delivery of crude oil, heating oil, natural gas and electricity, which my California colleagues should take special note, will move off of public exchanges where the public, the regulators, and Members of Congress can follow the changes in energy prices.

For example, currently market participants with more than 200 contracts, the equivalent of 200,000 barrels of oil, must report their positions to the CFTC and the exchange. And the CFTC makes the information available to the public. Trades off an exchange will not have the audit trail available to reconstruct fraud.

A situation could occur where consumer energy prices spike based on trades in energy derivative products conducted on private

exchanges that the energy companies themselves may even own. The potential for fraud and manipulation is too large to allow these trades to take place outside of public view, especially as the government is currently investigating possible energy price gouging.

The Commodity Futures Trading Commission, which oversees the exchanges, agrees with me. Just yesterday I received a letter from CFTC Chairman William Rainer, Chairman Rainer writes: "Charging the Commission with the responsibility to police for fraud and manipulation, however without conferring the authority to promulgate regulations where necessary, leaves the CFTC inadequately equipped to fulfill these responsibilities," and I'd like to place his letter into the record.

I urge my fellow committee members to lobby our colleagues from the Banking, Commerce and Agriculture Committees who are currently negotiating a version of the bill for the floor to remove this provision. If this provision is not removed, I look forward to a healthy floor debate on energy prices and the oil industry.

Let me note that the commodity modernization bill is otherwise a very important piece of legislation for the conduct of our Nation's financial services, and I totally support it.

I also want to point out to the committee another issue which was recently brought to my attention and is currently being considered in the Senate. In 1996, Mr. Horn and I held together a hearing before the Government Management, Information, and Technology Subcommittee to look into the industry's effort to cheat taxpayers out of millions of dollars owed in royalties for oil taken from Federal land. These hearings, and subsequent investigations by the GAO, led us to conclude that numerous major oil companies were paying royalties based on prices that were far lower than the true market value of the oil that they were buying and selling.

To date, lawsuits against the oil industry on this particular issue have resulted in more than \$300 million being returned to the taxpayers. Overall, the oil industry has been forced to pay over \$5 billion to the Federal Government, States, and Indian tribes. The revised oil valuation regulation that would base the price of oil from Federal lands on market value has emerged from these lawsuits, and according to MMS would add an additional \$66 million each year to the Federal Treasury, to the taxpayers.

Now, the Senate Energy and Natural Resources Committee plans to attach a provision designed to thwart the new evaluation rule to the Energy Policy and Conservation Act, legislation to reauthorize the Strategic Petroleum Reserve and to finally authorize the desperately needed Northeast Home Heating Oil Reserve.

I am astonished that we would consider attaching a giveaway to the oil industry in the midst of a bill designed to help consumers deal with the rising oil prices, and I have written to Secretary Babbitt urging him to strongly oppose this provision, and I am hopeful that the Senate will pass the Energy Policy and Conservation Act without the royalty-in-kind rider attached.

Spikes in energy prices may represent the single greatest threat to our record economic growth. This Congress should be working to provide a stable energy supply to the country, not rewarding the industry, particularly at this point in time.

Thank you, and I yield back the balance of my time.

Mr. BURTON. Mr. Shays.

Mr. SHAYS. Thank you, Mr. Chairman.

Mr. Chairman, my statement is really to welcome our witnesses here today, every one of them in both panels, to pledge to them that I'm going to try to have a very open mind. I am one who believes that we need to conserve much more and make a greater effort there, but have an open mind at all aspects of this issue.

And finally, just to welcome a witness, our first witness John Santa this morning. As the chief operating officer of the Santa Fuel Co. in Bridgeport, CT, my hometown, Mr. Santa is an important member of our business community and an extraordinarily knowledgeable spokesperson on energy issues in the Northeast. The Santa family has been providing energy products to Connecticut consumers since 1940. They know what it takes to build and sustain an efficient, reliable supply and distribution system, and I know his insights and experience will be of benefit to the committee this morning. I am grateful that he has joined us and grateful for the other witnesses.

Mr. BURTON. Thank you Mr. Shays.

[The prepared statement of Hon. Christopher Shays follows:]

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BERNARD SANDERS, VERMONT,
INDEPENDENT

Statement of Rep. Christopher Shays

Hearing of the Committee on Government Reform “Potential Energy Crisis in the Winter of 2000” September 20, 2000

Thank you Chairman Burton.

Let me first welcome John Santa to the witness panel this morning. As the Chief Operating Officer of the Santa Fuel Company in Bridgeport, Connecticut, Mr. Santa is an important member of our business community and a knowledgeable spokesman on energy issues in the Northeast. The Santa family has been providing energy products and services to Connecticut consumers since 1940. They know what it takes to build and sustain an efficient, reliable supply and distribution system. I know his insights and experience will be of benefit to the Committee this morning, and I am grateful he is able to join us.

Twenty-five years ago, heating oil prices were high, supplies were tight and dependence on foreign crude made us economically and politically vulnerable. The energy policies that emerged from that crisis stressed conservation, exploitation of domestic energy sources and a more stable marketplace supported by a national petroleum reserve.

Today, as then, exploration, conservation and information remain our strongest weapons against market panic and OPEC blackmail. To cushion against price volatility when harsh winters or cartel politics threaten the safety and livelihood of families and businesses, I also favor creation of a strategic heating oil reserve.

These are the elements of a modern energy policy I hope we can discuss in depth today.

Mr. BURTON. Before I go to the next Member, let me say we are going to have a vote in probably 10 minutes, and it is the intent of the Chair to continue the hearing, so we can go on. Mr. Shays will come back and take the chair after he votes, and then I will run and vote so we can continue on with the hearing.

Mr. SHAYS. There are evidently two votes.

Mr. BURTON. There is going to be two votes, OK. Well, then, that will mess that up. I would like to get to the witnesses as quickly as possible, but I guess, Mr. Kucinich or Mr. Kanjorski, you want to go next? We will try to enforce the 5-minute rule because we have so many Members who want to speak, and we want to get to the witnesses.

Mr. KANJORSKI. Mr. Chairman, I have extended opening remarks, and I would ask unanimous consent that they appear in the record in their entirety. If I may just take 1 or 2 minutes.

Mr. BURTON. Without objection. Yes, sir, that is fine.

Mr. KANJORSKI. One, I want to thank you for holding the hearing today. I look forward to the testimony over the next 2 days. But rather than just hearing testimony anymore or talking about the issue, it is time for the Congress to act. I think we are facing a potential that could create tremendous financial burden on working families, the elderly, small business and farmers with energy costs this winter.

In June of this last year, our committee met to discuss rising fuel prices and determine what we could do about it. We were given a lot of information as to where the volume and where the inventory was, and we are significantly lower in inventory this year than is wise.

We have, however, a policy and bill that the House passed in April of this year which extended authority to the President to utilize the Strategic Petroleum Reserve. To my best information, this legislation has remained dormant in the Senate, has not been addressed, and as a result it is highly questionable whether the President has the authority to release reserves from the Strategic Petroleum Reserve, and the potential may be either to knock the spiking prices down or to provide the necessary inventory to meet crisis conditions that could occur in a cold winter situation.

I think it is absolutely essential that we do our best on both sides of the aisle to urge our counterparts in the Senate to move this reauthorization of the President's authority through as quickly as possible.

Above and beyond that, I look forward to the testimony that these witnesses will give, and, again, I congratulate Mr. Chairman for holding these hearings.

Mr. BURTON. Thank you, Mr. Kanjorski.

[The prepared statement of Hon. Paul E. Kanjorski follows:]

**OPENING STATEMENT OF CONGRESSMAN PAUL E. KANJORSKI
HOUSE GOVERNMENT REFORM COMMITTEE
HEARING ON
POTENTIAL ENERGY CRISIS IN THE WINTER OF 2000
Wednesday, September 20, 2000 and Thursday, September, 21, 2000**

Thank you Mr. Chairman for convening this hearing on the looming energy crisis many of our constituents will face this coming winter. It is, however, imperative that we do more than merely listen to the testimony offered over the next two days. We must also move forward on legislative proposals that will lead our country toward a sound and stable national energy policy, and ease the financial burden working families, the elderly, small businesses, and farmers will face this winter when paying their energy bills.

In June of this year, our committee met to discuss rising fuel prices and to determine who was at fault for the exorbitant prices at the pump. At that hearing, the Energy Information Administration noted that in June of last year the Northeast had 41.3 million barrels of distillate stocks on hand. In June of this year, there were only 15.3 million barrels of heating oil stockpiled for the East Coast. According to the Energy Information Administration, the September 1 distillate fuel stock level (which also includes diesel fuel stocks) at 39.8 million barrels, is 39 percent behind last year's levels. Stocks are important in this forecast for the Northeast because they provide about 15 percent of supply during the peak winter months of January and February. Sixty percent of home heating oil supplies come from distant sources. Harsh weather conditions, as they did earlier this year, can create transportation problems. Without adequate stocks, then, individuals will be forced to pay exorbitantly high prices in times of need.

We had these numbers and these forecasts in June. Yet, in September, little has been done to prepare for the looming crisis. On March 31st of this year, for example, the President's authority to release oil from the Strategic Petroleum Reserve, or SPR, expired. Although the House passed the Energy Policy and Conservation Act, which extended the President's authority to draw down the SPR and create a Home Heating Oil Reserve in April, the Senate still has not acted. In June, the House attached a similar amendment to the Energy and Water Appropriations Act. Without the authority to draw down the SPR, the Administration is without the power to protect against oil price shocks related to supply interruptions. While the President has used his inherent authority to create the Northeastern Home Heating Oil Reserve so that it will be operational by October, challenges to this decision have already been raised. It is therefore critical that the Administration have the authority to protect individuals in the Northeast from home heating oil supply shortages.

I have also recently joined more than 100 of my colleagues in calling for the Administration to immediately address this critical situation. First, we have urged the immediate release of oil from the Strategic Petroleum Reserve. We also urged that OPEC and our major foreign suppliers be pressured into increasing their production of both crude oil and home heating oil. We have additionally asked that the President immediately release \$400 million in emergency funds in the Low Income Home Energy Assistance Program (LIHEAP) so that low-income families and individuals can pre-contract before prices rise higher this winter.

Even before receiving our letter, the Administration has already been working to address this matter. Secretary Richardson has continued to meet with members of OPEC, and OPEC has increased production of oil. However, due to Saddam Hussein's claims that Kuwait is drilling near the Iraq-Kuwait border and his threats to decrease production, world crude oil prices remain volatile and are nearing a record high. Additionally, the President did release all of the

emergency LIHEAP funds this past winter, totaling \$300 million, to help low-income families meet their energy needs. And finally, the Administration pledged to ensure the availability of low-interest loan guarantees through the Small Business Administration.

Moreover, I have recently joined more than 100 of my colleagues in urging appropriators in both bodies of Congress to adequately fund a number of vital energy programs for fiscal 2001. Specifically, we have asked that LIHEAP funds be increased by \$550 million. Currently, two-thirds of LIHEAP households have incomes of less than \$8,000 per year. Even with LIHEAP assistance, these families spend over 18 percent of their income on home energy costs, compared to just 6.7 percent for all households. We also asked that the Weatherization Assistance Program be increased by \$86 million so that 51,000 homes can be properly weatherized. Proper weatherization typically reduces the energy costs of a household by at least 23 percent.

We have further asked the appropriators to add \$4 million to the Interior spending bill so that the Northeastern Home Heating Oil Reserve will be able to continue to function as a safety net for home heating oil consumers. Additionally, we have asked for an increase of \$50 million for incentives for residences and businesses to install clean, distributed generation. These technologies, which include fuel cells, are appropriate alternatives to oil-based sources of energy. We have also asked that \$30 million be allotted so that homes and businesses can purchase and install wind, biomass and solar systems.

Over the past year I have asked not only the Administration but also this Committee to investigate possible price gouging by the oil industry. It is interesting to note that shortly after the Federal Trade Commission initiated an investigation into gasoline price spikes in cities in the Midwest, pump prices in those cities started to drop. While the FTC did not find sufficient evidence to provide a basis for a law enforcement action in regards to home heating oil prices, I welcome their continued monitoring of this situation. It is imperative that during the final negotiations over next year's spending, that we adequately equip the FTC's antitrust division by increasing its funding by \$29.7 million, which this body failed to do earlier this year.

Continued FTC monitoring of oil companies is especially important at a time when oil companies are enjoying record profits. According to research conducted by the Government Reform Committee Democratic staff, the ten largest oil companies reported tremendous increases in profits in the second quarter of 2000 – profits of \$11.1 billion, a 182 percent increase compared to the second quarter of 1999. Moreover, in the first and second quarters of 2000, total profits for these ten companies were \$20.8 billion – exceeding the total annual profits for all of 1999. Some of these companies' profit increases exceed 182 percent. For example, Sunoco increased its profits by 727 percent.

In addition to increased profits, stock prices for oil companies have also increased. According to Government Reform Committee Democratic staff research, since January 1, 2000, the average stock price for the ten largest oil companies has increased by 14 percent. In comparison, the Dow Jones Industrial Average has fallen by 3.7 percent.

Finally, the 106th Congress has unfortunately failed to initiate efforts that will reduce this country's dependence on foreign oil. Over the past few months the House has voted, without my support, to defund the voluntary partnership with automakers to develop a new generation of fuel-efficient vehicles that would run on such alternative sources of energy as hydrogen fuel cells. Budgets for research into renewable energies have also been slashed, at a time when the development of these technologies is most critical.

As I have said previously, the cost of energy greatly impacts all aspects of our economy. It is essential that this Congress and the Administration work together to take action now to

avoid causing any dislocation that would fuel an inflationary spiral that could jeopardize our economic prosperity. Over the years we have deregulated this industry to the point that it is extremely difficult for the government to implement immediate solutions to such crises. In a free market economy, there is a limit to the ability of the government to control the cost of commodities. However, through a sound national energy policy, we can encourage the development of alternatives to petroleum.

Thank you again, Mr. Chairman, for convening this hearing. I look forward to the testimony that we will hear today and the comments that will bring us closer to developing the sound energy policy that this country needs.

Mr. BURTON. Any statements on our side?

Mr. Kucinich.

Mr. KUCINICH. I would also like unanimous consent to have my entire statement in the record, but I would like a couple of minutes here just to review.

Mr. BURTON. We will put your whole statement in the record.

Mr. KUCINICH. Thank you.

I would like a few minutes here to review what I think is the most important point to consider at this point. And the area I'd like to touch on is the U.S. oil company response to OPEC oil production cutbacks.

Mr. Burton and Mr. Waxman and members of the committee, I'd like to quote a commentary found in Business Week. It is the edition that is just coming out September 25, 2000. The article, Big Oil's Priority: Pump Up the Stock Price. Here is the article:

It has been the problem that won't go away. The skyrocketing price of oil. Already three times this year, OPEC has increased its oil production quotas in an effort to alleviate the pressure. So what about the major non-OPEC oil companies who, along with a number of non-OPEC nations, collectively produce more than half the world's crude? Surprisingly, while OPEC is pumping harder than it has in decades, some of the world's largest oil companies are actually producing less. BP slashed its production by 4 percent, and midsized producers such as Texaco and Occidental Petroleum have been even less active. Both saw their worldwide oil output slide 7 percent in the first half of this year. Together, 10 of the largest reduced their output by 0.4 percent in the first half of this year, according to a recent report from Merrill Lynch and Co. "The lack of a production increase from non-OPEC sources is a big reason why prices remain high," says Merrill Lynch analyst Steven A. Pfeiffer.

This Business Week article suggests, Mr. Chairman, that while Congress and the administration have directed attention and effort to compelling greater oil production by OPEC, American-based oil companies have escaped notice and are lowering production. The commentary further explains that oil companies want higher profits to make Wall Street happy and protect themselves against future losses from low oil prices.

I look forward to the oil industry's explanation of lowering oil production during an oil shortage.

I yield back.

Mr. BURTON. Thank you Mr. Kucinich.

[The prepared statement of Hon. Dennis J. Kucinich follows:]



GROC Opening Statement: Energy Crisis in the Winter of 2000/2001

Thank you for holding this hearing today. I would like to touch on three areas of concern, U.S. oil company response to OPEC oil production cutbacks, the Unocal RFG patent and rising natural gas prices.

I'd like to quote a commentary *Big Oil's Priority: Pump Up the Stock Price* found in Business Week (September 25, 2000)

It has been the problem that won't go away: the skyrocketing price of oil. Already three times this year, OPEC has increased its oil production quotas in an effort to alleviate the pressure.

So what about the major non-OPEC oil companies, who, along with a number of non-OPEC nations, collectively produce more than half of the world's crude? Surprisingly, while OPEC is pumping harder than it has in decades, some of the world's largest oil companies are actually producing less. BP (BPA) slashed its production by 4% and midsize producers such as Texaco Inc. (TX) and Occidental Petroleum Corp. (OXY) have been even less active. Both saw their worldwide oil output slide 7% in the first half of this year. Together, ten of the largest reduced their output by 0.4% in the first half of this year, according to a recent report from Merrill Lynch & Co. "The lack of a production increase from non-OPEC sources is a big reason why prices remain high," says Merrill Lynch analyst Steven A. Pfeifer.

This Business Week article suggests that while Congress and the Administration have directed attention and effort to compelling greater oil production by OPEC, American based oil companies have escaped notice and are lowering production. The commentary further explains that oil companies want higher profits to make Wall Street happy and protect themselves against future losses from low oil prices. I look forward to the oil industry's explanation of lowering oil production during an oil shortage.

Unocal Patent

Some have consistently argued that rising gases prices are linked to federal environmental regulations. Many in the oil industry have pointed to the Unocal patents on RFG as partially responsible for short gasoline supplies and higher prices. I believe that it is wrong for anyone to suggest that Americans must choose between cheap gas and healthy air. In response I have introduced H.R. 4739, the Lower Gasoline Prices through Technology Access Act. This legislative proposal has considerable merit and support

Valero Energy Corporation, one of the largest independent refining companies in the U.S. has endorsed this legislation. Their letter states "In short, if your bill results in a mandatory licensing on a reasonable basis, Congress will have contributed to maintaining a robust and competitive refining industry, yielding lower gasoline prices for the cleaner products demanded by the Clean Air Act and American consumers"

This legislation will make possible a reasonable license for patents necessary for meeting the clean air act rules of reformulated gasoline. No one company should hold a monopoly over clean air technologies and force the consumer to choose between cheap gas and healthy air.

Natural Gas Prices

In August, I began receiving dozens of letters from my constituents in Cleveland who were alarmed by the rising natural gas prices. How could the heating fuel for most people in Cleveland begin to rise in August? Cleveland can have tough winters, but not in August. People have yet to turn on their heat and ~~they are already feeling the pinch.~~

Again, I wonder about the natural gas industry. I look forward to hearing from the natural gas industry to explain these drastic price increases.

The temporary measure is clear. I believe that the federal government has the moral responsibility to intercede on behalf of the many fixed-income seniors and lower income families who will suffer from high costs of heat this winter.

Currently, two-thirds of Low Income Home Energy Assistance Program (LIHEAP) households have incomes of less than \$8,000 per year and even with the assistance, the average LIHEAP family spends over 18 percent of its income on home energy costs -- compared with 6.7 percent for all households.

Thank you.

Mr. BURTON. Mr. Ose.

Mr. OSE. Thank you, Mr. Chairman. I will be very brief.

There are four of us from California on this committee, Mr. Waxman, Mr. Lantos, Mr. Horn, and myself, and we have had the dubious pleasure of enduring some rather significant variation in the electricity pricing over the past 3 or 4 months. One of the interesting things that has come to my attention which I hope to explore in the context of this committee hearing is the source of the electricity that goes into the California market and whether or not that source has increased or that source of supply has increased, decreased, remained stable and the like.

In the context of the hearing, I will be sharing with the committee exactly what I found, which took me about 8 minutes on the Internet. But the reality is that we have had a reduction in the amount of electrical energy supplied to California, not from the private side, but from the Federal side. From the Federal side. A conscious decision by the Federal Government to reduce the amount of electricity being generated to service any number of markets, but the primary market being California, and the primary market within California being San Diego.

So I just look forward to the time during questions where we can go through that. I have the legislative background and everything, and it is going to be quite interesting.

Mr. Chairman, with that I really do want to compliment you and Mr. Waxman for putting this hearing together, and I look forward to the questions.

Mr. BURTON. I thank the gentleman.

Let me just ask you if you would yield to me briefly.

Mr. OSE. Certainly, I will yield to you.

Mr. BURTON. You are saying there was a deliberate attempt by some regulatory agency in the Federal Government to reduce the amount of electricity to various parts of the country, and in particular southern California?

Mr. OSE. I'm saying that there has been a reduction for one purpose, the consequence of which has been a significant price spike in the cost of electricity, even though the agency that implemented the reduction has the authority to waive it. In other words, they have the authority to not cause the reduction. Believe me, it will be fun.

Mr. BURTON. I will be interested in hearing what you have to say.

Ms. Schakowsky, did you have a statement?

Ms. SCHAKOWSKY. Thank you, Mr. Chairman.

Mr. Chairman, I represent also the Chicago area, as does Congresswoman Biggert, and some of the suburbs, and we have been plagued with energy problems. The summer before last, we had—we were notorious for unreliable electric service, and Commonwealth Edison is still struggling to be able to make sure that we can have reliable service that we pay the highest prices in the Midwest.

And this past summer we faced the highest gasoline prices in the Nation. At that time the oil industry made an attempt to justify those prices mostly by blaming ethanol and the EPA. But it does seem that as soon as Congress on both sides of the aisle asked for

an FTC investigation that those differential prices evaporated. The administration was prompt to respond, but many people and business owners and farmers were made to suffer greatly.

And as we approach this heating season, as Mrs. Biggert pointed out, we are facing more bad news. Natural gas prices, the fuel which heats virtually every home in my district and over half of all the Nation's families, are soaring. The November and December future prices have more than doubled in the last year, and this definitely spells trouble, worse trouble even than Congresswoman Biggert pointed out. Although we all received in the mail, those of us who have NICOR, the notice that said that if you paid \$410 last year, that you will pay \$610—I just got off of a conference call. The August projection was \$410 last year. Then they said \$670. Well, their October estimate is that we will be paying \$750 this winter for the same amount of gas that we paid \$410 for last year. So we are getting close to a doubling of the cost for ordinary consumers.

And it seems to me that, once again, we're getting excuses that it is inconceivable to anyone in the energy industry that they could not know that natural gas prices would go up. Even if the winter is mild, increased demand from the electric utilities sector is evident. Over the past years energy consumption has been steadily on the rise. Who did the industry think would supply these plants? And given this demand, how did the industry think it would be able to meet its long-term contract obligations and serve its core customers?

It seems to me, just like earlier this summer, pinning the blame on environmental protection won't wash either. Nothing has changed in terms of environmental protection over the last year. But now the prices are so high, exploration is up 44 percent, and, by their own admission, the industry purposely kept supplies low because prices did not meet their profit goals.

We know that taxpayers already provide the oil and gas industry with massive tax breaks for exploration and development; \$18 billion is the projected total for corporations for the 1996–2002 period, and \$1 billion alone in percent depletion and expensing provisions this year. How can we tell our constituents that they are getting their money's worth when these companies make decisions to reduce supplies and charge cartel-level prices?

Mr. Chairman, I look—I very much look forward to these hearings. I was not here when Congress decided to deregulate natural gas and crude oil, but many of us outside the Beltway at the time had serious concerns about those decisions. Many of us questioned the wisdom of turning energy supply and price decisionmaking, decisions that affect every inch of our economy and every person in our country, over to an industry whose bottom line is their bottom line and not our economic interest. I am glad that we have recognized that there is a Federal responsibility to ensure that energy is available and reasonably priced, and I look forward to being informed by our witnesses. Thank you.

Mr. BURTON. Thank you, Ms. Schakowsky.

Any further statements?

Mr. Allen.

Mr. ALLEN. Thank you, Mr. Chairman for scheduling these hearings. I will be brief.

Last winter the Northeast, including my State of Maine, suffered through a heating oil shortage that made many seniors and low-income families choose between heating their homes and putting food on the table. Today we are again facing a crisis with oil prices at a 20-year high.

Rising diesel fuel cost are putting some truckers out of business since they cannot survive when half their income goes into the gas tank. We have to do everything we can to understand what is driving the rise in prices and use available mechanisms to protect the American people.

First, I urged President Clinton to swap oil from the Strategic Petroleum Reserve with the oil industry. Investment experts in the petroleum market believe that just a small release of oil from the Reserve could immediately stabilize prices.

Second, the U.S. must continue to pressure OPEC to increase oil supplies.

Third, Congress needs to provide appropriate funding for the Low-Income Home Energy Assistance Program, and the President should immediately release \$400 million and make it available to consumers to lock in prices for the winter.

Fourth, we should increase funding for the Weatherization Assistance Program, which could reduce the energy costs of the poor, elderly and disabled by over 23 percent.

Mr. Chairman, we also should not lose sight of our long-term need to address our growing energy demand and reduce America's vulnerability to future price spikes. Unfortunately, the United States will remain vulnerable as long as Congress fails to pass the long-term energy efficiency policies that will reduce our dependence on fossil fuels. The technology is available today for car companies to meet higher standards without any loss in vehicle weight or power. Companies like Ford are pledging to increase fuel economy and reduce emissions on SUVs. We should be encouraging these policies and programs.

Mr. Chairman, while we must investigate short-term causes and find temporary solutions, we must also develop a long-term energy policy that reduces our dependence on foreign oil, increases investments in renewable energy, and prevents consumers from being gouged when supplies are low.

Mr. Chairman, I thank you for this opportunity and for holding this important hearing.

Mr. BURTON. Thank you.

Do any other Members have comments they would like to make? If not, I want to welcome our witnesses. Would you please stand and raise your right hands.

[Witnesses sworn.]

Mr. BURTON. I think you have all been asked to try to restrict your comments to 5 minutes so we can get to questions. If you have to take a little bit longer than that, we will try to be lenient, but we will try to stay to that if we can. We will start with Mr. Santa.

STATEMENTS OF JOHN SANTA, CHIEF OPERATIONS OFFICER, SANTA FUEL, BRIDGEPORT, CT; RAY TILMAN, FORMER PRESIDENT, MONTANA RESOURCES, BUTTE, MT; DAVID PURSELL, VICE PRESIDENT OF UPSTREAM RESEARCH, SIMMONS & CO. INTERNATIONAL, HOUSTON, TX; STEVE J. LANE, SENIOR FACILITIES ENGINEER, SDL, INC., SAN JOSE, CA; AND DAVID HAMILTON, POLICY DIRECTOR, ALLIANCE TO SAVE ENERGY

Mr. SANTA. Thank you, Chairman Burton, and Mr. Waxman and fellow committee members. My name is John Santa. I am CEO of Santa Energy of Bridgeport, CT. We are a regional marketer and distributor of petroleum, natural gas, and energy-related products in southern New England. We employ 170 people, operate a truck fleet of 140 units, and market approximately 4 million barrels of all products of residential, commercial, industrial and wholesale sectors.

We own or throughput in five terminals in three States. We maintain approximately 700,000 barrels of storage to supply some or all of the needs of approximately 130 dealers in southern New England. Started by our parents in 1940, grown by my brothers and me for the past 40 years, we are now ushering in a new generation of family and owners and managers who will rise to the 21st century energy challenges.

You have asked me here today to discuss the petroleum supply and pricing situation with you and your committee colleagues. More specifically you want to know what the government may have done to exacerbate this issue, or, alternatively, what can they do to help abate it. For this opportunity, and on behalf of my family and other dealers like me whom I represent, I thank you.

My approach to this will be to present you with what we perceive to be the symptoms of the current situation, the real issues of the current situation, and we have some suggested solutions to you for the situation facing us today.

As to the symptoms, currently there is what we refer to as a market inversion, which is to say the product now costs more than it will sell for in January. Unless you are out of your mind, you are not going to buy any product or put it in storage. That is why we're not buying. It's not that we don't want to; we can't.

Second, rapid price movement. When the supply gets low, the price moves around a lot.

And finally, hysteria. A lot of it is media-fed, and I urge you very passionately not to buy into that. Take a cool, dispassionate look at this. This is serious business and deserves that kind of a look.

As to underlying issues and real ones that exist, we have, first of all, the market and its players. It's different, it's new, it's very efficient. If I bring you no other message today, then let's talk about that one. It is a brave new world. It's not your grandfather's Oldsmobile that we're dealing with here today. More about that later.

Infrastructure. Infrastructure has changed rapidly. In my city of Bridgeport, 20 years ago there were 12 oil storage terminals. Today there are three. Other cities nearby have had similar changes in the amount of infrastructure there. That has also changed. It's not

bad; it's just different, and it's way efficient, and you can't play with it the way you played with it before.

Third, we have had this problem tremendously exacerbated by noncontracted interruptible gas users. I use those words very carefully chosen. We supply interruptibles like nobody's business. The ones that are the problems are the ones that do not contract for or utilize interruptible service of product.

We have for you some suggested solutions. Right now on the Senate side there is a bill, the Energy Policy Conservation Act. I urge you to look at this very carefully. Among other things, this will bring to our consumers consumer information that they need. They are fearful right now, and as you all well know, fear is based on ignorance more than anything else, and the people are generally ignorant of how the new energy world works. I urge you to help them get there. You could do them a real service by doing that.

Second, tax incentives. We had the opportunity last month to meet with Secretary Richardson. We suggested to him that when there is no carry in the market such as you find right now where the price is inverted, if the Federal Government were to offer us a tax incentive to have that carry, we'd fill the storage. And if the carry came back, you can have your tax incentive back. We don't want to collect twice, just once. But we have to collect once or we can't fill the tanks. It is as simple as that.

Fourth, commitment. Commitment is very important. Last year, I committed to my suppliers, and my customers committed to me. I saved our homeowners over \$4 million. To them the price spike, to them supply dislocations did not happen. Very simply, we used the mercantile exchange, the commodity market to do this. It can do this for you. We did this also for our governmental customers and as well as for institutional and industrial customers.

Finally, we would urge you to take a good solid look at and do what you can to help conservation. I would point out to you that in 1970, the average home in New England burned 1,600 gallons of heating fuel per year. Today that number is 900 gallons per year. That is a dramatic difference, and we played a big part in it, and so did you. And let's get together and do some more of that because that is a win-win deal for everybody.

Concluding, I would like to say to you that it is a whole new ballgame. I want very much to talk to you and tell you that because the impact, not just the heating oil, but what all of my friends are here to talk to you about today, it is affecting all of them, too, electricity, natural gas and petroleum products. It is a whole new ballgame, and it is not a bad ballgame, it's just a new ballgame, and let's talk about this. Thank you.

Mr. BURTON. Thank you, Mr. Santa. We will have some questions for you just a minute.

[The prepared statement of Mr. Santa follows:]

SANTA ENERGY

154 Admiral Street

Bridgeport, Ct.

**Hon. Dan Burton , Chairman
Hon. Henry Waxman, Ranking Minority Member
House of Representatives
Committee on Government Reform
2157 Rayburn House Office Building
Washington , D.C. 20515-6143**

September 19,

2000

Dear Mr. Chairman and Committee Members,

**My name is John Santa and I am C.E.O. of Santa Energy of Bridgeport ,
Connecticut.. We are a regional marketer and distributor of petroleum ,
natural gas and energy related products in southern New England. We
employ 170 people, operate a fleet of 140 units and market approximately 4
mm.bbl.. of all products to the residential ,commercial, industrial and
wholesale sectors. We own or throughput in five terminals in three states.
We maintain nearly 700,000 bbl of storage to supply some or all of the needs
of approximately 130 dealers. Started by our parents in 1940, grown by my
brothers and me for the past 40 years , we now are ushering in a new
generation of family and owners and managers who will rise to the twenty
first century energy challenges.**

**You have asked me here today to discuss the petroleum supply and
pricing situation with you and your committee colleagues. More specifically**

you want to know what the government may have done to exacerbate this issue or alternatively, what can they do to help to abate it . For this opportunity and on behalf of my family and other dealers like me whom I represent, I thank you. My approach to this will be to present you with what we perceive to be the symptoms , problems and solutions to the issues before us today.

SYMPTOMS:

1. **Current Pricing Outlook** : In order to balance an uneven demand curve with proper supply we must have inventories . To build inventory there must be pricing to encourage that storage. So if oil in January were worth substantially more than September, the market would have a *carry* and a wholesaler like us would be encouraged to buy and store product. Currently the market offers no such incentive . The price is high now and is lower in January . So , when there is no *carry* and hence no payment for the necessary financing and storage costs of the product , you just don't buy or store it. Which leads to low supply which leads to –
2. **Rapid Product Price Movement** : Petroleum pricing ,like that of all other commoditized products ,works on the very simple rules of supply and demand. Low supply and constant , growing or perceived growing demand is ,by its nature , a most dynamic condition. Combine these factors together and the situation is set for –

3. **Hysteria** : We have some history to deal with here and the average consumer begins to be fearful and so this phenomenon feeds on itself . Consider however that fear is really based on ignorance of the real issues at hand and we now begin to gain ground and reassert control over the issue confronting us. While there are many factors that comprise the problem at hand , I would like to discuss three that I consider to be most important.

PROBLEMS :

1. **The Market and Its Players** : The primary petroleum price discovery mechanism prior to 1980 was to simply buy the Wall Street Journal and look up the price for Exxon Cargo New York Harbor and in essence all other prices would be variations on that. Those days are gone. Today's infinitely efficient albeit merciless mechanism is the commodity market. Gone are the old lions like Getty and Gulf and now it is the likes of Morgan-Stanley and Transmontaigne among others with less and more well known names who drive pricing mechanisms on domestic refined product .The very important and most subtle difference between our old and new players is that the old ones were highly integrated energy producers who were both fiscally and physically deeply invested in infrastructure of the petroleum industry while the new ones are almost exclusively financial firms without little or no ties to production capacity. This is not an indictment or judgement on the new breed as much as it is

a realization that different people are now playing the game and for very different reasons and goals. The old ones were committed and connected to the petroleum market and its end users. The new ones are committed to the financial market and their investors. It doesn't make them bad , just different. And hence, we too must act differently. Today's market is much more dynamic and much less forgiving. Ignoring such factors is only done at the very great peril of any market participant at any level. On the other hand , astute utilization of the commodities market combined with supplier-user commitment enabled our firm to save our customers many millions of dollars while they escaped all concerns of the supply crunch.

2. Infrastructure: Some of the best attributes of petroleum as an energy fuel are the flexibility of its transport modes , its storability and its safety. Consider the fact that unlike electricity moving in wires or gas through pipes , petroleum can be move in ships, barges, trains or pipelines. It can be stored with great safety near or away from waterways and it can be easily moved by truck, boat or pipeline to an end users home or facility to be stored again for more imminent use. All of this however presumes that there is someone there who wishes to obtain the permit and then build, maintain and operate this system. Quite simply this is what has been lost with the exit of the major integrated petroleum companies. Here is a brief description of its effect on our little corner of the world : Twenty years ago Stamford Connecticut had

eight terminals. Today it has one ;Ten miles east, Norwalk had five and today has one; Another 15 miles east, Bridgeport had ten and today it has three. While all of us would concede that we might have been somewhat "overtanked" in the past that is surely not the case now. Longer drives and fewer choices certainly spell impending issues as you try to supply that market. And who can blame the terminal operators? Threats of pollution difficulties, OSHA compliance issues, pressure from developers – all of these add up to a very unappealing prospect for a terminal company if they are not fully and totally committed to the energy world. And for the end user / homeowner , it erodes that entire price stabilizing effect of storage . Is the picture now becoming clearer ? Now let's get to a component that really exacerbates the issue :

3. Non-Contracted Supply Of Gas Interruptibles : Let me state clearly at the outset that it is our long held opinion that energy users from the substantial commercial size on up should have dual fuel capability. It just makes sense. With very little difficulty or dislocation , we supply the needs of many, many very large interruptible end users. But we do it on contract and they buy it from us every year on a predictable and monthly ratable schedule. In large part last year's difficult mid season spike was immeasurably worsened by the effect of many companies who were either working on an interruptible rate and hadn't used any petroleum in years or they hadn't contracted for any product or ,

believe it or not , actually had no tank ! These were the consumers who actually dealt the coup de gras to an already severely strained and considerably overworked petroleum infrastructure. They were major contributors to last years price spike and concomitant supply dislocation. In essence those consumers and their gas suppliers brought about a situation that both very unfair and also fatally flawed. Their posture was such that they expected that the petroleum industry would have nothing better to do than to sit around all year and wait for that moment or window in time in which oil would pick up the slack of energy supply which THEY opted to abandon. With no guarantee that such window or moment would ever occur. This is wrong. The petroleum industry has , can and will pick up the slack but it can not be fairly expected to do so solely at the whim of natural gas users or suppliers.

SOLUTIONS:

1. **Consumer Information** : As noted above much of the hysteria over these supply and price issues is based on plain and simple ignorance of the issues involved and what to do about them .There is currently a bill before the Senate called the Energy Policy Conservation Act. I urge you to study that bill carefully and pass it so that consumers will gain a better understanding of the real issues of the proper use and comparison purchasing of all forms of energy.

2. **Tax Incentives** : Utilize tax policy to encourage petroleum infrastructure , refining and domestic production. All of these factors would help to not only spur our national economy but they would also help to lessen our balance of trade issues. In the instant case of the Regional Petroleum Reserve , I have suggested to Secretary Richardson that a simple tax incentive to wholesalers when there is no *carry* would eliminate the need to establish and maintain the reserve. Right now , the product being aggregated for the reserve seems to be extending the price spike and its very existence as well as uncertainty about the nature and timing of its release is a disincentive for wholesalers to buy and store product. At the local level , the very simple support of a tax incentive for wholesalers , dealers and ,most importantly , end users to build good usable petroleum storage would be a very great help to the current situation.
3. **Review of Product Dying Policy**: Currently between the I.R.S. and the E.P.A. we store multiple grades of diesel and kerosene. Prior to 1993 , we stored one type of diesel that was used for heat and motor fuel. Today we store two. Thus we need two tanks to store the same volume of sales . In 1998 these rules were extended to kerosene. Thus we now need four tanks to store two products. The resultant exclusive use of tanks, pumps, transfer lines and trucks has put an additional constraint and reduction on usable infrastructure. We are certain that there is a better way to do this.

4. **Contracting for Product:** There was a time when all or nearly all product was contracted for at the wholesale , commercial and industrial levels. Among other things , this sort of system allows refiners to know with certainty how much product they needed to produce and at what time they needed to do so. Today there is no such situation. Opportunistic wholesalers enter a market and exit again as quickly as they came if conditions don't suit them. Resellers jump from one wholesaler to another over fractions of pennies difference in price per gallon. And finally, while the majority of end users and homeowners are loyal to their suppliers , nevertheless a whole stratum of consumers has entered the market to hop-shop for Oilheat as though they were buying peas or paper towels at the local supermarket. This then reverberates back up the supply chain. Overlay all of this with the deregulation of natural gas and electricity markets and you now have a very confused and jittery group of energy suppliers and users. In that situation the prices can get very volatile . And they do . And that's why we are here today.
5. **Conservation :** We have been here before . The energy crises of the 70's had America and much of the world in quite a spin. But we got out of it and did so very well with the very simple method of conservation. As consumers or legislators it is relatively difficult to do much about the supply of product. We can however do something very good and real and immediate about demand. In

1971 the average New England home used 1600 gallons per year of Oilheat. Today they use only 900 gallons. This is the kind of activity that really permanently affects the price of petroleum . In the past Oilheat dealers like our firm worked very hard to bring this about . We stand ready to do it again.

Thank you for your kind attention to these vital matters of mutual interest . We look forward to working with you on dynamic solutions to these vexing issues.

Very Truly Yours,

John S. Santa , C.E.O.
Santa Energy

Mr. BURTON. We send somebody over there to vote and come back? We will go ahead. Those who want to go ahead and vote can come back.

Mr. Tilman, you want to go ahead, and we will hear your testimony, and then we will recess for the vote.

Mr. TILMAN. OK. My name is Ray Tilman. I'm representing Montana Resources, a copper and molybdenum mining company. I've been associated with the company for the last 16 years, and I have been directly involved in electric power issues for the last 35 years.

Montana Resources is located in Butte, MT. We mine and mill raw ore to produce copper and molybdenum concentrates that are shipped to smelters and roasters throughout the world. Our ore deposit is very low-grade deposit, but through the last 14 years we have been successful in operating. Our success has been as a result of our unique employee programs, including profit-sharing. The company has paid—I want to make a quick correction for you here. In the testimony I gave you, it said \$5 million. It is \$7.2 million a year in State and local taxes. These are dollars that are directly needed for the local school district and the government to operate.

Montana Resources has survived the ups and downs of the copper and moly market, as well as the changes in the price of crude oil. Unfortunately, we have not been able to survive the unforeseen, unrealistic ramp-up of electricity prices in the Western United States early this summer.

I've given you a handout. If you care to look at it, it's page 7, and it shows what's happened to the Mid C price that affects the Western power, and you can see that it has gone from somewhere in the \$30 range up to at high as \$650 per megawatt hour. On June 30, unfortunately, we were forced to temporarily shut our operations down and lay off 320 employees, which is 15 percent of the work force, the industrial work force, in Butte, MT.

Power prices, as I mentioned, escalated from \$35 to \$650 per megawatt hour on a spot basis. Our contract expired June 30th. Prior to the expiration of our contract and since then, we have not been able to secure a short-term or long-term contract at reasonable prices that would allow us to operate in the black.

Montana Resources uses about 32 million kilowatt hours of power more month. We also use about 3.6 million gallons of diesel fuel per year and 200,000 MCFs of natural gas per year. With power prices at \$35 per megawatt, our average cost is about \$1.1 million a month or \$13 million a year.

We produce about 85 to 90 million pounds of copper per year, and approximately 9 million pounds of molybdenum per year.

Electric power is approximately 25 percent of our overall cost of producing power. When that cost goes up even a little bit, it has a huge effect on our ability to stay in business. The unforeseen and, in my opinion, frankly unexplainable spike in the Western power prices not only has forced many Western basic industry plants to shut down, including ours, it has also artificially inflated the near-term and long-term prices in the West.

We now have a whole raft of experts who are rationalizing why this happened and justifying why they believe the prices should stay high for the foreseeable future. The price of power in the West over the past 3 months has been well above \$120 per megawatt,

which, when you look at that jump from \$35 to \$120 per megawatt, is about the same as the price of gas going from \$1.60 to \$8.50. I have a very hard time explaining to the 320 people that I personally had to lay off why our power costs are so high in the West. When you look on the east coast—and by that, those of in us West mean east of the Mississippi—is today selling in the 20's during the day and sometimes in the midteens in the offpeak, and you can see that on the last page that I included.

I can only equate our situation to the canary in the coal mine that was used to sense carbon monoxide before it killed the miners. We're sensing a problem and sending out warning signals. Montana Resources believes in the free enterprise system, and we understand the ups and downs of commodity markets. However, I would suggest that there has never been a commodity swing so far and so fast from \$35 to \$650 in 6 weeks. I would suggest that we may need to fine-tune this whole idea of restructuring of our electrical industry.

Electricity is a very unique commodity. In many instances it has no substitute, and it cannot be stored like wheat, copper, natural gas or crude oil. In our business we have to have reasonably priced electricity to run our industrial electric motors. There is no substitute. If I offer to sell you copper at \$10 a pound, you can say, no, I'm going to replace it with PVC or aluminum. When the homeowner turns on her air conditioner, she expects to be able to do that for a reasonable price. What happened in San Diego this past year? Electric bills tripled.

The price in the West over the past 4 months are giving some companies huge windfall profits. You may want to check some quarterly and year-end stockholder statements of certain power producers and power brokers. When you have losers, who in this case are always the consumers, you will also have winners. If it costs \$15 to \$30 per megawatt to produce power, and it is being sold for \$100 to \$200, there needs to be some fine-tuning in the system.

Although I have spent the last 30 years buying power and negotiating contracts, presently I am unable to find a way in the current market out of this dilemma, but I trust that there are people with sufficient knowledge with power to address the situation and find solutions. I do know that if we don't come up with a solution soon, the basic industries in the West are in for additional shut-downs, some of them permanent. Additionally, I would suggest that the next victims of these unrealistically high power prices will be the homeowners.

I would offer the following suggestions for your consideration: I think we need to limit the Federal agencies like BPA, WAPA or TVA's ability to go into the open market and buy or sell their power above cost.

I think we need to regulate open access to the transmission systems to prevent gaming in that area.

I think that we need to insist that all power transactions are totally transparent and listed similar to other commodity markets.

Look more seriously at energy efficiency and energy sources for the Federal Government uses. You may not know it, but the Fed-

eral Government is one of the largest users of power in the United States.

We need to encourage BPA to more seriously look at maximizing power production from the Columbia River system while using technology to assist the fish migration. I don't have anything against the fish; in fact, I take pictures of them and like to catch them. But we have one of the most wonderful hydro systems in the world that is not operating up to its capability. If we can put a man on the moon, we can certainly get fish from Astoria, WA, up to their breeding grounds.

We need to look at the process in building new generation. Certainly most experts believe California in particular needs more generation. And we need to look at expediting that process so that plants can be built as expeditiously as possible.

The present prices for energy, natural gas and electricity, in my judgment, will start having a huge negative impact on the U.S. economy and the economy of the world if we don't aggressively address it.

Thank you, and I appreciate, Mr. Chairman, the opportunity to discuss these issues before this committee. Thank you.

Mr. BURTON. Thank you, Mr. Tilman.

[The prepared statement of Mr. Tilman follows:]

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TESTIMONY OF RAY TILMAN
MONTANA RESOURCES

TO

U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON GOVERNMENT REFORM

SEPTEMBER 20, 2000

MY NAME IS RAY TILMAN AND I AM REPRESENTING MONTANA RESOURCES, A COPPER AND MOLYBDENUM MINING COMPANY. I HAVE BEEN ASSOCIATED WITH MONTANA RESOURCES FOR THE PAST SIXTEEN YEARS AND DIRECTLY INVOLVED IN ELECTRIC POWER ISSUES FOR THE PAST THIRTY YEARS.

MONTANA RESOURCES, LOCATED IN BUTTE, MONTANA, MINES AND MILLS RAW ORE TO PRODUCE COPPER AND MOLYBDENUM CONCENTRATES THAT ARE FURTHER PROCESSED AT SMELTERS AND ROASTERS THROUGHOUT THE WORLD. OUR ORE DEPOSIT IS VERY LOW GRADE, BUT, NEVERTHELESS, WE HAVE BEEN SUCCESSFUL. WE WERE ABLE TO RESTART A MINE THAT HAD PROVEN UNECONOMICAL FOR ANOTHER COMPANY. OUR SUCCESS HAS BEEN A RESULT OF UNIQUE EMPLOYEE PROGRAMS INCLUDING PROFIT SHARING. THE COMPANY HAS PAID ON AVERAGE \$5 MILLION A YEAR IN STATE AND LOCAL TAXES. DOLLARS THE LOCAL SCHOOL DISTRICT AND GOVERNMENT DEPEND ON TO OPERATE.

MONTANA RESOURCES HAS SURVIVED THE UPS AND DOWNS OF THE COPPER AND MOLYBDENUM MARKET, AS WELL AS THE CHANGES IN CRUDE OIL PRICES. UNFORTUNATELY, WE HAVE NOT BEEN ABLE TO SURVIVE THE UNFORSEEN AND UNREALISTIC RAMP-UP OF THE ELECTRICITY PRICES IN THE WESTERN UNITED STATES EARLY THIS

SUMMER. ON JUNE 30, WE WERE FORCED TO TEMPORARILY SHUT-DOWN OUR OPERATIONS AND LAY-OFF 320 EMPLOYEES. POWER PRICES HAD ESCALATED FROM \$35 TO \$650/MW ON A SPOT BASIS. OUR POWER CONTRACTS EXPIRED 6/3-/00 AND WE HAVE BEEN UNSUCCESSFUL BOTH PRIOR TO THE EXPIRATION AND SINCE IN SECURING EITHER A SHORT-TERM OR LONG-TERM CONTRACT AT REASONABLE RATES THAT WOULD ALLOW MONTANA RESOURCES TO OPERATE IN THE BLACK.

MONTANA RESOURCES USES ABOUT 32,000,000KWH/MONTH. WITH A NORMAL RATE OF \$35/MW, ELECTRICITY COSTS US \$1,100,000 A MONTH OR ABOUT \$13,000,000/YEAR. WE PRODUCE ABOUT 85-90,000,000 POUNDS OF COPPER PER YEAR. ELECTRIC POWER IS APPROXIMATELY 25% OF OUR TOTAL PRODUCTION COST. WHEN THAT COST GOES UP EVEN A MINOR AMOUNT IT HAS A HUGE AFFECT ON OUR ABILITY TO STAY IN BUSINESS. THE UNFORSEEN, AND FRANKLY UNEXPLAINABLE, SPIKE IN THE WESTERN POWER PRICES NOT ONLY HAS FORCED MANY WESTERN BASIC INDUSTRY PLANTS TO SHUT DOWN, IT HAS ALSO ARTIFICIALLY INFLATED THE NEAR-TERM AND LONG-TERM PRICES IN THE WEST.

WE NOW HAVE A WHOLE RAFT OF "EXPERTS" WHO ARE RATIONALIZING WHY RATES SKY-ROCKETED AND JUSTIFYING WHY THE PRICES WILL STAY HIGH FOR THE FORESEEABLE FUTURE. THE

PRICE OF POWER IN THE WEST OVER THE PAST THREE MONTHS HAS BEEN WELL OVER \$120/MW WHICH WHEN COMPARED TO NORMAL PRICES IS EQUIVALENT TO THE PRICE OF GAS AT THE PUMP SUDDENLY JUMPING UP TO \$8.50. I HAVE A VERY HARD TIME EXPLAINING TO THOSE 320 LAID-OFF WORKERS AND THEIR FAMILIES WHY OUR POWER COST IN THE WEST IS SO HIGH, WHILE ON THE EAST COAST POWER IS SELLING IN THE MID \$20'S DURING THE DAY AND AT TIMES IN THE MID TEENS DURING OFF-PEAK HOURS.

I CAN ONLY EQUATE OUR SITUATION TO THE "CANARY IN THE COAL MINE" THAT WAS USED TO SENSE CARBON MONOXIDE BEFORE IT KILLED THE MINERS. WE ARE SENSING A PROBLEM AND SENDING OUT WARNING SIGNALS. MONTANA RESOURCES BELIEVES IN THE FREE ENTERPRISE SYSTEM AND WE UNDERSTAND THE UPS AND DOWNS IN THE COMMODITY MARKETS. HOWEVER I WOULD SUGGEST THAT THERE HAS NEVER BEEN A COMMODITY SWING SO FAR AND SO FAST {35 TO 650 IN SIX WEEKS}. I WOULD SUGGEST THAT WE MAY NEED TO FINE TUNE THE RESTRUCTURING OF OUR ELECTRIC POWER INDUSTRY.

ELECTRICITY IS A VERY UNIQUE COMMODITY. IN MANY INSTANCES IT HAS NO SUBSTITUTES AND IT CAN NOT BE STORED LIKE WHEAT, COPPER, OIL, OR NATURAL GAS. IN OUR BUSINESS WE HAVE TO HAVE REASONABLY PRICED ELECTRICITY TO RUN OUR

INDUSTRIAL MOTORS, THERE IS NO SUBSTITUTE. IF I OFFER TO SELL YOU A COPPPER PIPE FOR \$10/LB, YOU CAN SAY "NO" AND LOOK FOR MORE REASONABLY PRICED SUBSTITUTES SUCH AS PVC OR ALUMINUM. WHEN THE HOMEOWNER TURNS ON HER AIR CONDITIONER, SHE EXPECTS TO BE ABLE TO DO THAT FOR A REASONABLE PRICE. WHAT HAPPENED IN SAN DIEGO THIS PAST JUNE? ELECTRIC BILLS TRIPPLED.

THE PRICES SEEN IN THE WEST OVER THE PAST FOUR MONTHS ARE GIVING SOME COMPANIES HUGE WINDFALL PROFITS. YOU MAY WANT TO CHECK SOME QUARTERLY AND YEAREND STOCKHOLDER STATEMENTS OF CERTAIN POWER PRODUCERS AND POWER BROKERS. WHEN YOU HAVE LOOSERS, WHO IN THIS CASE ARE ALWAYS THE CONSUMERS, YOU WILL ALSO HAVE WINNERS. IF POWER COSTS \$15-30/MW TO PRODUCE AND IS BEING SOLD FOR \$100-200/MW THERE NEEDS TO BE SOME FINE TUNING OF THE SYSTEM.

ALTHOUGH I HAVE SPENT THE PAST 30 YEARS BUYING POWER AND NEGOCIATING POWER CONTRACTS, I AM UNABLE TO FIND A WAY IN THE CURRENT MARKET OUT OF THIS DILEMA. BUT, I TRUST THAT THERE ARE PEOPLE WITH SUFFICIENT KNOWKLEDGE AND POWER TO ADDRESS THE SITUATION AND FIND SOLUTIONS. I DO KNOW THAT IF WE DON'T COME UP WITH SOME SOLUTIONS SOON, THE BASIC

INDUSTRIES OF THE WEST ARE IN FOR ADDITIONAL SHUTDOWNS, SOME OF THEM PERMANENT. ADDITIONALLY I WOULD SUGGEST THAT THE NEXT VICTIMS OF THESE UNREALISTICALLY HIGH POWER PRICES WILL BE THE HOMEOWNERS. I WOULD OFFER THE FOLLOWING SUGGESTIONS FOR YOUR CONSIDERATION:

- LIMIT BPA, WAPA, OR TVA'S ABILITY TO GO INTO THE OPEN MARKET TO BUY OR SELL ABOVE COST.
- REGULATE OPEN ACCESS TO TRANSMISSION TO PREVENT GAMING.
- INSIST THAT ALL POWER TRANSACTIONS ARE TOTALLY TRANSPARENT AND LISTED SIMILAR TO OTHER COMMODITY MARKETS.
- LOOK MORE SERIOUSLY AT ENERGY EFFICIENCY AND ALTERNATIVE ENERGY SOURCES FOR GOVERNMENT USERS. (THE FEDERAL GOVERNMENT IS ONE OF THE LARGEST POWER USERS IN THE U.S.)
- ENCOURAGE BPA TO LOOK MORE SERIOUSLY AT MAXIMIZING THE POWER PRODUCTION FROM THE COLUMBIA RIVER SYSTEM WHILE USING TECHNOLOGY TO ASSIST THE FISH MIGRATION.
- LOOK AT THE PROCESS INVOLVED IN BUILDING NEW POWER GENERATION PLANTS TO ASSURE THAT WHEN NEEDED

THESE PLANTS CAN BE BUILT EXPEDITIOUSLY WHILE
PROPERLY PROTECTING THE ENVIRONMENT.

I APPRECIATE THE OPPORTUNITY TO TALK TO YOU AND THANK YOU
FOR YOUR TIME AND ATTENTION ON THIS IMPORTANT ISSUE.

Mr. BURTON. Mr. Pursell. We will proceed, because there is one vote, and the Members will be coming back from the floor. And because of the importance of getting through the hearing, I decided to stay here and miss this one vote, so I want you to know how important I think it is, because I don't miss many votes.

Mr. PURSELL. I am David Pursell. I'm a market analyst, both global crude oil and North American natural gas, for Simmons & Co. in Houston, TX.

I appreciate the opportunity to come talk to you today about some very serious issues facing the country. In our opinion, we are facing the very real possibility of shortages of natural gas and heating oil, the two key winter heating fuels. Current low inventory levels and record prices for both natural gas and heating oil portend a continued market this winter that, depending on a number of factors including the weather, could result in shortages of one or both key products.

It is important to point out that the single biggest factor driving high heating oil prices is the cost of crude oil. My opinion and the opinion of Simmons & Co. is that high prices will persist through the winter, and as a result there will likely be little or no relief to the consumer in the short term.

More alarming is the possibility for supply disruptions in the event of a cold or sequential winter due to low inventory levels, as you can see exhibit K. The key lines to look at are the inventory. The bold white lines at the bottom show that we, both on the east coast and nationally, have record low inventories of high sulfur distillate.

If you look at exhibit A, I also forecast record low natural gas inventories as we enter the winter season. These low inventories are again a result of a tight market which could result in even higher prices and the potential for interruptions during the winter.

The key graph to look at there is the green line. That's the current inventory fill this summer. What is a bit troubling is the fact that it is approaching the record low levels, and also the slope of that line shows that inventory gains during the summer have significantly underperformed past trends. This portends a tight market.

We can characterize the natural gas market by low current inventory levels, difficulty in meaningfully increasing domestic production, and ongoing demand growth driven by the electrical generation sector.

If you look at Exhibit E, this is a graph that will take a second to discuss, but it is production history of a significant amount of wells in the Gulf of Mexico, a key producing basin. You can see in the 1980's, or the left side of this graph, the production seemed to peak in the winter and through in the summer. This phenomenon was because there was excess well capacity. In other words, producers were curtailed, or they had to restrict production or actually shut in wells during the summer because the pipelines were full, and there wasn't enough end use demand.

You can see—and this is a key point to understanding the natural gas market. This term was called the gas bubble, meaning we had too much well production capacity. If you look around 1992, that excess capacity went away, and you can see it on the produc-

tion graph by the seasonal oscillations it went away. If you make this graph with almost any region of the country, you would see the same phenomenon, that around 1992 or 1993 the gas bubble burst, the seasonal oscillations went away, which means that wells are being produced at or near capacity year round. That is a key point to take out of this.

Contrary to the EIA's contention that in a December 1997 report that there is nearly 20 billion cubic feet a day of lower 48 surplus wellhead productive capacity, actual production and market data suggests that most gas wells are producing at or near capacity year round. In fact, the EIA stated that the lion's share of excess capacity existed in the Gulf of Mexico, which actual production data suggests that just maintaining production is extremely difficult.

Exhibit B shows the decline rate treadmill of the Gulf of Mexico Shelf, one of the most prolific and important natural gas basins in the United States. The aggregate decline rate of the most recent wells for which data are available suggests an annual decline rate of 50 percent, compared to 20 percent during the 1970's. Most simply stated, that says your average well in the Gulf of Mexico declined; its production rate is cut in half within 12 months.

If you look at exhibit F, this—the top line is the line to focus on. That is U.S. natural gas production over the last, I believe, 8 years on a quarterly average basis. U.S. natural gas production has been essentially flat over the last 5 years, even though natural gas directed drilling, which is the line below the green line, has steadily increased. And we can measure—we count the number of rigs drilling for natural gas on a weekly basis. That is a number that is very, very accurate.

The lack of substantive production growth is consistent with accelerating underlying decline rates of the base production. I can't reiterate any more strongly that there is simply no surplus wellhead capacity in the lower 48.

This is important because the difficulty in growing supply is extremely important when looking at the forecast domestic demand growth. If you look at exhibit G, the National Petroleum Council suggests that natural gas demand will grow 2 to 2½ percent per year, driven by the electrical generation sector. We believe in the next 3 to 5 years those estimates could prove to be conservative.

The National Petroleum Council also forecasts that nearly 50 percent of the production volume growth to meet this demand over the next 10 years originates from increasing domestic oil production and increased development of unconventional natural gas resource base, which includes low permeability, shale and coalbed methane reservoirs. We're simply moving down the food chain of reservoir quality as we bet on the come that that is where we are going to achieve the volume growth.

Given the current challenges facing domestic natural gas supply growth, we believe it is unlikely that the NPC's ambitious supply side can be met without opening areas that are currently off limits or available with restrictions. The NPC suggests that nearly 213 cubic feet of natural gas resource domestically is currently off limits, as shown in exhibit I.

Not often mentioned in the debate surrounding high natural gas prices is the negative impact on the manufacturing sector, which

we estimate accounts for nearly 30 percent of total domestic natural gas consumption. Several large companies have recently issued profit warnings for the third quarter due to high energy prices, and in extreme cases output has been restricted, as we have just heard.

We are concerned that large-scale curtailments could occur this winter if the weather is colder than last year's record warm winter, further impacting the manufacturing sector. In short, we're concerned that the near-term natural gas market will consist of high prices with significant upside volatility with a potential for curtailments this winter. Longer term we believe that the supply side will continue to struggle to keep up with ongoing domestic demand growth, resulting in a new sustained high price level.

Thank you very much for the opportunity.

[The prepared statement of Mr. Pursell follows:]

David A. Pursell
 Testimony to Committee on Government Reform
 Wednesday September 20, 2000

Thank you for the opportunity to testify to the Committee on Government Reform regarding some very serious energy issues that our country is facing during both the next few months and the next few years. In short, we are facing the very real possibility of experiencing shortages of both primary winter-heating fuels, heating oil and natural gas. I would like to discuss the current status of both the heating oil and natural gas markets, and provide short-term and long-term outlooks.

First, I would like to discuss natural gas, which is a key fuel for winter space heating of homes and commercial buildings. Exhibit A shows the natural gas inventory trends for the past six years. Natural gas is injected into underground storage reservoirs during the summer months and then withdrawn during the winter when demand is highest. The current storage trends show that injections have lagged historical trends over the last five months and I currently project storage levels to be below the prior minimum levels at the start of the typical withdrawal season (November 1, 2000). I also project that storage levels will be near 700 bcf at the end of March 2001...if we have another near-record warm winter. If the coming winter is colder than the last several warm winters, storage inventories may be insufficient to meet peak winter demand, resulting in higher prices and end-user curtailments. Entering the winter with low natural gas storage inventories should be a major concern as natural gas storage is the only "backstop" in existence to meet peaking winter demand.

How did we arrive at such a perilous situation? A combination of 1) difficulty achieving meaningful production increases in the existing mature natural gas basins and 2) steadily increasing domestic consumption driven by the electrical generation sector have created an unbalanced supply and demand situation, which has resulted in high natural gas prices and the potential for winter disruptions.

The supply-side of the natural gas equation is characterized by accelerating decline rates, which make meaningful production growth difficult. Put simply, all oil and gas wells experience declining production. These production decline trends can often be characterized in terms of a constant annual decline rate. Work done by our firm (Simmons & Company International) shows that aggregate well decline rates have been accelerating since the late 1980s. On the Gulf of Mexico Shelf, the most important natural gas basin in the U.S., decline rates have increased to near 50% per year for wells drilled and completed during 1998 (Exhibit B). As we look to other key producing regions such as the onshore Texas Gulf Coast and East Texas, we see similar trends of accelerating decline rates (Exhibit C). Exhibit D highlights the vast difference in the production characteristics of a well experiencing a 40% annual decline and a well experiencing a 10% annual decline. After six years, the well declining at 10% per year will be producing more than six times the daily production rate as the well declining at 40% per year.

A very important factor that is missed by many natural gas analysts is the fact that the “gas bubble” burst in the early 1990s. The “gas bubble” was the term used for excess wellhead production capacity, which is best illustrated by an example. Exhibit E shows gas production from a large portion of the Gulf of Mexico Shelf. The “gas bubble” is obvious during the 1980s as production peaked in the winter and hit a trough during the summer as gas wells were curtailed. This curtailment occurred because there was insufficient summer demand (combination of end-user and storage demand) and natural gas companies simply shut-in or restricted production from their gas wells. By the early to mid-1990’s, the seasonal oscillation ended, which is the clearest evidence of diminished excess well capacity, and wells were being produced at/near full capacity for the entire year...in short, the “gas bubble” burst! This, combined with some technology advances (such as 3-dimensional seismic and more efficient well completion practices), are the primary reasons for the accelerated decline rates being experienced in key domestic producing basins.

Exhibit F shows how difficult U.S. natural gas supply growth has been during the second half of the 1990s, even though natural gas-directed drilling steadily increased. In fact, domestic natural gas production over the last five years has been essentially flat. This is a result of accelerated decline rates and further illustrates how difficult achieving substantive production growth is in the existing U.S. producing basins.

It is interesting that in December 1997 the Energy Information Administration (“EIA”) released a report titled “Natural Gas Productive Capacity For the Lower 48 States.” The report states that there was surplus well capacity in the Gulf of Mexico of 7.5 billion cubic feet per day (bcf/day) which was forecast to nearly double to 13 bcf/day in two years. The projected surplus well capacity would almost equal the amount of actual Gulf of Mexico gas production...even though forecasted production did not increase. Total lower 48 surplus capacity was estimated to be 17 bcf/day and projected to increase to 20 bcf/day by the end of 1998. This analysis fails the test of fundamental and economic reality.

At the urging of oil and gas trade organizations, the EIA attempted to study the impacts of accelerating decline rates in a report issued July 2000 and this report acknowledges that decline rates are accelerating for natural gas wells drilled in the Gulf of Mexico (in Appendix G)! Even though the EIA modeled the case with accelerating decline rates, they predicted that natural gas prices would average \$2.49/mcf in 2005, \$2.66/mcf in 2010 and \$4.24/mcf in 2020. These prices are significantly different from the current price of \$5.20/mcf and the 2001 average futures price of \$4.78/mcf (which the EIA predicts occurring sometime *after* 2020).

The National Petroleum Council (“Meeting the Challenges of the Nation’s Growing Natural Gas Demand,” December 1999) suggests that natural gas demand will grow 2% to 2.5% annually, driven primarily by the electrical generation sector (Exhibit G). This growing demand is well documented and is evident in the four-year order backlog for gas-fired power generators. Our firm believes, in fact, that the NPC growth forecasts

may actually be too low and that a 3% per year or higher gas demand growth may materialize over the next several years.

Given the difficulty in achieving production growth over the previous five years, we wonder how domestic gas production can grow at a rate high enough to meet rising domestic demand. The NPC forecasts associated gas (gas produced from oil wells) production will grow nearly 2% per year for the next 10 years. We find this highly unlikely as lower 48 oil production is likely to decline over the next 10 years. Also, the NPC forecasts significant production increases from low permeability, shale and coalbed methane reservoirs. Successful development of these unconventional gas reservoirs will be key to being able to meet the projected future demand growth, although, we believe it is unlikely that the forecasted production growth can be achieved.

If the existing producing basins are not likely to yield the production growth necessary to meet projected growth forecasts, what are the alternatives? The NPC study showed significant areas of natural gas potential that are off limits or severely restricted to current development (Exhibit I). Opening up these areas for development could help to keep supply and demand in balance. Longer-term, an Alaskan North Slope pipeline would add significant quantities of natural gas to the lower 48 natural gas market during the second half of this decade.

Forecasts

We expect the current high price environment to continue through the winter with the potential for significant upward price volatility. Given the tight natural gas market and the resulting high prices, there has been understandable concern and public discourse regarding the impact of high natural gas prices on consumers (most recently the EIA's "Winter Fuel Market Assessment 2000" presented September 13, 2000). We share these concerns. However, we are also concerned about the impacts of high natural gas prices on key industrial consumers. It should not be lost on the Committee that the manufacturing sector accounts for nearly 30% of all domestic natural gas consumption. Several of these companies have recently announced profit warnings and in extreme cases have reduced output due to high fuel/feedstock prices. In fact, given the low inventory levels we are concerned that large-scale curtailments could occur if this winter is colder than last year's record warm winter...further impacting the manufacturing sector.

Our longer-term outlook indicates continued tight natural gas markets as supply gains are forecasted to just meet demand growth. The natural gas market will continue to be tight, and a result, natural gas prices will be higher than those experienced during the 1990s. Although long-term prices are difficult to predict, natural gas prices will most likely stay well above \$3/mcf for the next two to four years.

Heating Oil – Exhibit J shows the relationship between crude oil and heating oil prices. It must be made perfectly clear that the most significant variable in determining heating oil prices is the price of crude oil. As we believe there is a likelihood of continued high

crude oil prices through the winter, consumers of heating oil are unlikely to see significant price relief this winter.

More concerning than high prices are the current low heating oil inventories and our forecast of low heating oil inventories as we enter the winter (Exhibit K). High natural gas prices have contributed to a higher degree of fuel switching this summer as evidenced by the 5+% year-to-year growth in distillate demand (heating oil is a main component of distillate). If we experience a colder sequential winter, the ability of the system to meet deliveries could be seriously tested as inventories would reach record low levels. Using our projected heating oil inventories on November 1, and the historical heating oil inventory draws during the winter, it is likely that heating oil inventories reach record low levels by the end of March 2001. Thus, disruptions to residential consumers becomes a real possibility.

Exhibit A U.S. Working Gas Storage Levels

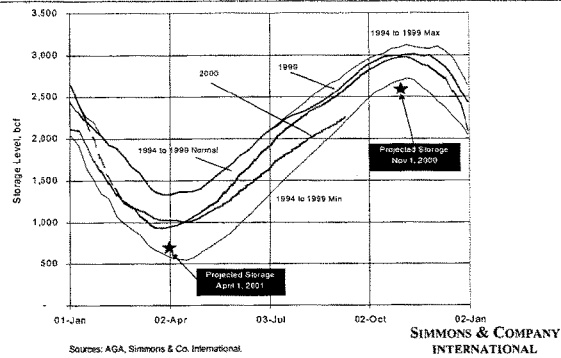


Exhibit B Gulf Of Mexico Treadmill

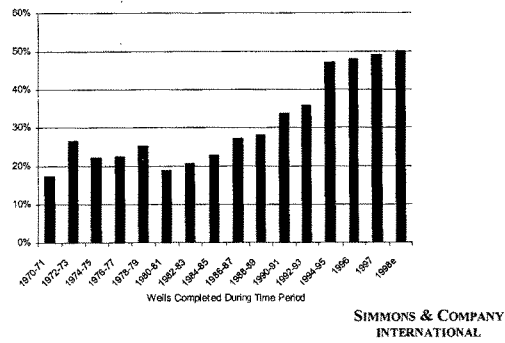
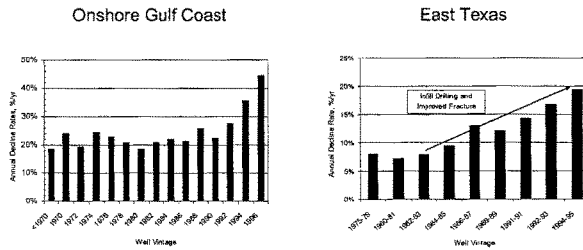


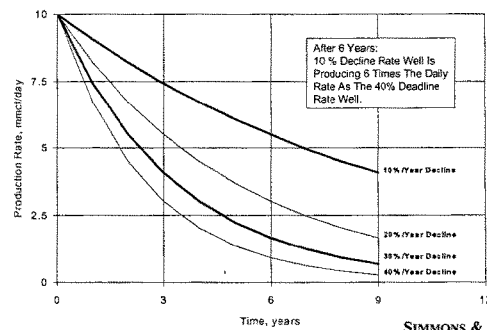
Exhibit C
Onshore Treadmill



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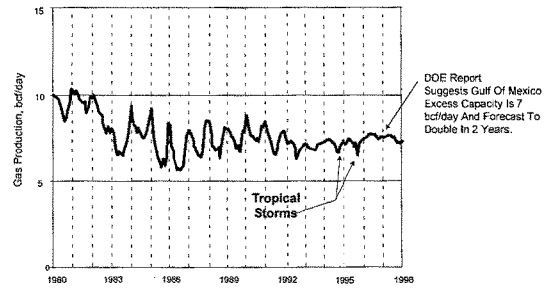
Exhibit D

High Decline Rate Impact Future Production



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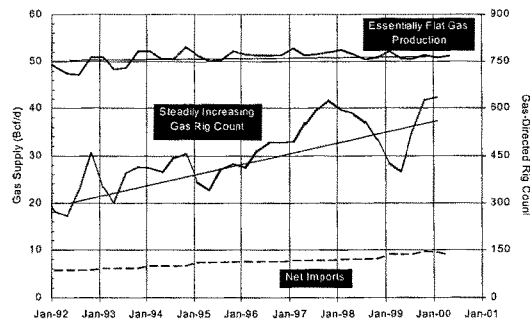
Exhibit E Gas Bubble



Sources: PI Dwigts, Simmons & Co. International

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Exhibit F Supply: Supply Gains?



Sources: DOE, Baker Hughes, Simmons & Co. International

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Exhibit G Forecast Natural Gas Growth

- Electricity Sector Demand 10% To 15% Annually.
- NPC Expects Total Demand Growth 2.0% To 2.5% Annually.... Could Be Conservative.

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Exhibit H NPC Long Term Supply Outlook

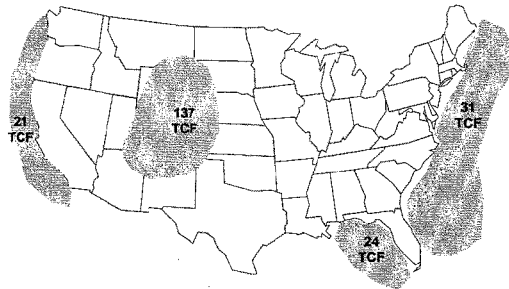
	1998		2005		2010	
	bcf/day		bcf/day	Annual Change	bcf/day	Annual Change
Associated Gas	7.3		8.0	1.4%	9.6	2.3%
High Permeability	31.2		38.4	2.9%	40.6	2.2%
Low Permeability & Shale	10.4		12.4	2.5%	14.4	2.7%
Coalbed Methane	3.1		3.1	-0.1%	4.1	2.3%
TOTAL	(52.1)		61.9	2.5%	(68.8)	2.3%

16.7 bcf/day of Production
Adds

Source: NPC.

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Exhibit I Lower-48 Natural Gas Resources

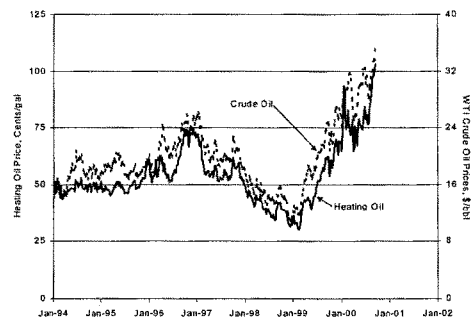


- Significant amount of resource is subject to access restrictions
- These areas are close to large and growing population centers.

Source: NPC.

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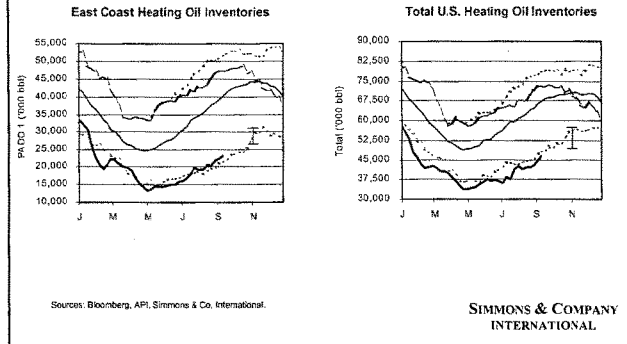
Exhibit J Heating Oil & Crude Oil Prices



Source: Bloomberg

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Exhibit K Heating Oil Inventories



Mr. BURTON. Keep those graphs handy, because we are going to have some questions in a little bit about those.

Mr. Lane.

Mr. LANE. My name is Steve Lane. I'm a senior facilities engineer with SDL, Inc., in San Jose, CA. And we have heard several times including Mr. Burton said that there were some brownouts in the San Jose area on June 14th, and I was one of the ones hit by those. So what I am going to share a little bit is some of the things, first, what happened to us, and what we've had to do to hope to allay those problems in the future, but also maybe some suggestions that we see could be implemented from a Federal level as well as our State level.

Anyway, our company is only about 15 years old. We were started by Spectrophysics, and I forgot the other name of the company before. But anyway, we were started just recently and haven't been in the market long enough to see any of the previous energy crises that have hit in our area or anywhere else.

Anyway, basically back on June 14th, the temperature in San Jose reached 109 degrees, which is the highest temperature ever recorded in the San Jose area, and as a result of that, of course, everybody was air-conditioning more and more, and the load on the system continued to rise beyond the level of our local transmission capability. We have almost no local generation at all in the South Bay and San Francisco area. And so what happened is as the load continued to increase, the voltage started to dip, and the California ISO orders a brownout based on the voltage support. They were not able to maintain the voltage of the system, and that's why the brownout or the blackout occurred in our area. It's the first one we have ever had in our area, so nobody was expecting it, nobody was prepared for it, and we were probably one of the hardest hit companies in the whole area, mainly because as the voltage dropped, motors are going to pull more current to make up for dip in voltage. So our PG&E transformer exceeded its capacity and burned up about 15 minutes before PG&E shut our power down.

We were responding to an emergency situation—not physical life safety emergency, but company emergency situation, and did not even realize that our grid was shut down, because they left us a voice mail message 15 minutes before they shut off the power, and we were out responding to the urgent situation which happened about 15 minutes before our power went down.

So anyway, what happened was we have very critical semiconductor equipment. It's backed up by hydrogen gas purifiers, and those purifiers must remain powered at all times. If the power fails, those purifiers go down, and they have to be replaced. They can't just be regenerated like a cryopump or something. If our power had failed to those things—we have emergency power backup, but we have a limited amount of backup because we have never had to worry about backup in the past. We've never had a power failure, other than a couple of times in the winter of heavy rains and storms, whatever, have cut our power.

So what happened was we called immediately for refueling because we found out as our transformer melted down, we found out that we were going to be down for 12 to 24 hours before PG&E could bring in and replace our transformer. And they had 100

transformers burned up that day in the Bay area that they had to replace because of the low voltage and high current. So they were busy replacing transformers.

Well, when we found out that our fuel provider for the diesel fuel could not make a fill for about 24 hours at our plant site because they had gotten so many calls from every other plant site in the area, so we were looking at our generator going down, which takes down our power to our purifiers. So we actually sent people out to buy 5-gallon buckets, barrels, whatever, gas cans and go to diesel stations and pump diesel fuel. And we actually hand-loaded our diesel tank all night long. Our VP of technology was on top of the diesel tank, filling it himself, along with me.

So, you know, it was one of those situations where you don't expect it, and we handled it, but it was dangerous. It was dangerously close.

Now, in my prepared statement I wrote that what had happened financially was if those purifiers go down, there is about a 6-month lead time. We have 10 of them. They are \$60,000 apiece. Nobody carries those on their shelves because they are custom-designed items, and they are expensive, and they normally don't go down. We could have been out of business for at least 6 months if those things had all failed. You know, obviously that is catastrophic. That could be devastating. Who knows what would have happened financially to our company.

But anyway, what we did do, we have a very small emergency power generator because in the past we have only needed it for life safety equipment, lighting and communications equipment, and these gas purifiers. We are in the process of expanding, just because we're growing so fast. We are trying to increase production about five times this year alone, and we are in the fiberoptic industry, which has grown like crazy. So anyway, we are looking at increasing our generator capacity for backup anyway. Now we are looking at instead of just increasing the generator to handle life safety and a few key items, we are looking at the potential to put a diesel generator—that should scare a lot of people—big enough to provide our whole production capacity during these projected brownouts or blackouts, I should say, over the next 2 to 4 years in our area.

So, you know, nobody wants to run diesel. We are looking at natural gas, but there are challenges with natural gas, too. The pipeline in our area may not be able to handle a generator big enough to handle all of our power. So kind of just to net it out, we have gone back and increased the capacity of our infrastructure in our plant site to, you know, handle, you know, shutdowns and other things. But also we would like to see from the Federal level any—what are they called, lobbying, or whatever it takes to promote the swift permitting and installation of power plants in our area and in the whole West Coast, California in particular.

We are severely undergenerated in our area, and we're also low on transmission. If you generated the power outside of the Bay area, and you tried to run it in on the lines, they can't even handle it on the power lines in our area currently because it takes so long to permit and install power lines that the power companies are fighting that battle as well. It takes up to 7 years to install a new

high-voltage power transmission line into our—into any area, and we are low on both. So we need help speeding up power plant installations and transmission project installation.

In particular, there is one right now that is kind of a hot button in our area. Calpine and Bechtel are trying to put in a plant in South San Jose, the Metcalf Energy Center, 600-megawatt natural-gas-fired power plant. Some of the constituents in their area, one company and one neighborhood group, are going at it with a NIMBY idea that they don't want it in their backyard. And nobody does, but we all need power. So we would like to see, you know, the streamlining of that permitting and installation process.

Also, I sit on the Silicon Valley Manufacturing Group Energy Task Force, which is a conglomeration of not only high-tech companies, but other companies, as well as Hanson concrete plant up in the Saratoga foothills. And we're—as a group, we are trying to reduce power demand on hot days. Our problem is not the winter; our problem is the summer with electricity demand. We're working to reduce and curtail power demand on those hot days. And we have even seen some companies like Hewlett-Packard just recently was able to reduce voluntarily 20 percent of their power demand on the grid just by taking measures of turning off lights, raising temperature, turning on generators and whatnot. And even the Electric Power Research Institute which has a local office was able to reduce power over 20 percent.

So we are doing a lot locally to reduce power, but we need help with increasing the power supply into our area as well. Thank you.

Mr. BURTON. Thank you, Mr. Lane.

[The prepared statement of Mr. Lane follows:]

Impact to SDL, Inc. of June 14th, 2000, Power Brownout
By Steven Lane, Sr. Facilities Engineer

SDL, Inc.
 80 Rose Orchard Way
 San Jose, CA 95134

Background on SDL, Inc.: SDL, Inc. started about 15 years ago as a Spectra Diode Lasers as a joint venture of 2 companies. It is now an independent, publicly traded company (NASDAQ: SDLI) making components and systems for the fiber optic telecommunications industry and enabling greater bandwidth and data transmission speeds over the Internet, for both overland (terrestrial lasers) and undersea (submarine lasers). JDS Uniphase recently offered \$41B in stock for SDL and is in the process of Justice Department approval of the purchase.

The temperature reached 109 degrees F in San Jose on June 14th, 2000, which is the highest temperature ever recorded in San Jose. SDL's chillers and air conditioning systems were working at their highest level ever to keep up with the load. We have a 2000 A, 480 V power transformer fed from PG&E power. The whole grid in San Jose was experiencing record load that day, so the voltage on the system started to dip dangerously low. When electric motors see lower voltage, they will make up for it by drawing more current, therefore our building equipment started drawing more and more current as the temperature was rising and the voltage dipping. At about 2:45pm on June 14th, the current draw exceeded the capacity of PG&E's transformer on our property and the transformer overheated catastrophically. It started spewing oil and smoke out of the cabinet and ultimately shut itself down by way of its overheat protection devices.

This was happening just about simultaneously with a telephone call from our PG&E account rep to our facilities manager at about 2:45pm that our block on the power grid had been ordered to be shut down at 3pm by the California Independent System Operator. Our facilities manager was offsite in a meeting along with all of the operations management and most of the engineers and didn't receive the call until he checked his voice mail messages several hours later. At 3pm, unbeknownst to us, PG&E shut off the power to our plant site and the first group of circuits to experience a Cal ISO ordered power brownout. This was not truly a Stage 3 Power Alert, because the entire grid had not dipped below 1-1/2% reserves, but instead was a selected brownout to protect voltage support in the San Jose area, which was dipping dangerously low in voltage and could have caused cascading failures of the power grid starting in San Jose that could potentially create a major blackout on the entire West Coast, if the Cal ISO had not ordered the brownout.

SDL was not prepared for this situation, since it has never happened in the 15 year history of our company, so we did not have some safeguards in place that we have since and are currently implementing to protect our company's production and indeed our very business existence. We have a small emergency backup diesel generator (175KW) that operates our life safety equipment, our toxic and flammable gas alarm systems and our communications systems. It is not nearly large enough to operate any more, but had very rarely been needed for power failures in the past, prior to this summer. We also added connections to the emergency generator for gas purifiers for Hydrogen gas, which is used in growing the wafers for our semiconductor lasers. These gas purifiers are very expensive and very sensitive to losses of power for any period of time whatsoever. They are also very long lead items and are not kept in inventory anywhere, because of their custom design and high cost. If we had lost power to these purifiers, it could have put us into bankruptcy and potentially out of business.

As soon as we ascertained the power shutdown situation from the brownout and the extent of the damage to our transformer and found out from PG&E that it would take at least 12 to 24 hours to transport and replace our transformer, we immediately called for additional fuel for our emergency generator, which had a 100 gallon diesel tank and operated at up to 10 gallons of fuel per hour. This meant that we only had a 10-hour fuel supply in the tank. This generator had never had to run more than a very short time in test or

for power switchovers for construction projects, so we had never come close to consuming the entire fuel capacity before. Unfortunately, our fuel provider had received calls from many other companies that day and could not make it to our site for about 24 hours. This meant that we were in great jeopardy of losing power to our gas purifiers. These purifiers cost about \$60,000 each, not installed, and take up to 6 months just to get one. We have 10 of them in this building in San Jose. If the power to these purifiers had failed, we would have been out of production for at least 6 months. Every one of our lasers and systems sold by SDL starts in one of the Epitaxial Reactors fed from these purifiers. That could have mounted to at least \$220M in lost revenue for the minimum 6 months downtime, to say nothing about the continuing expenses during this period of time, and potentially several times more than that to get all gas purifiers back online. That would have been certain death of the company. We actually lost about 24 hours production due to the combination of the transformer failure and the brownout that first day, but have also experienced 3 other power failures as a result of our old knife-switch type switchgear that was damaged in the power failure and caused two 2000A fuse failures in the 2 weeks following June 14th and one 2000A Breaker failure, after we replaced the switchgear with a Breaker. The total downtime directly attributable to the June 14th incident was about 60 hours of production, or 0.7% of our production year (about \$3M in lost revenue alone, based on 2nd quarter revenues), plus expenses due to replacements, rental equipment, continuing labor and overhead expenses during these shutdowns and equipment rentals and purchases to protect us.

What have we done to avoid this kind of problem in the future? We already had an expansion plan in place for our power feed from PG&E to double its capacity with a new 4000A service. That is still in construction. We rented a backup diesel generator and permitted it with the Bay Area Air Quality Management District for 12-hour/day operation up to every day of the year. We are running that 12 hours/day to provide power to our air conditioning chillers, which is approximately 30% of our building load. That power has been taken off of the PG&E grid 12 hours/day. This will be used only during the hot weather and only until our new power feed is completed in about 2-3 more months. We also installed Uninterruptible Power Sources (UPS) for each of our reactors and fed these from the emergency generator. We are in the process of reevaluating the capacity of our future emergency or backup generator to determine whether we will size it to handle only life safety and critical equipment, or to handle the entire production power demand in the event of probable power brownouts over the next 2 to 4 years. We are evaluating and comparing diesel vs. natural gas fired generators for this purpose. We will most certainly install a new, larger capacity emergency generator with a much larger fuel capacity to handle our continued expansion and added backup requirements.

We, as a company, are also very actively participating in the Silicon Valley Manufacturing Group's Energy Task Force to try to come up with solutions to the energy crisis in the Silicon Valley and the entire region and we are actively lobbying for the swift approval of power generation and transmission projects like the proposed Calpine/Bechtel joint venture 600 MW Metcalf Energy Center in South San Jose, which would go a long way toward providing critically needed local power generation and voltage support for the region to avoid the types of situations that occurred on June 14th. SDL and the Energy Task Force are also working to voluntarily curtail power consumption on very hot summer days, to help avoid the excessive demand on the power system. This effort has proven to be quite effective in several large and small companies, including HP and the Electric Power Research Institute (EPRI). We are working together as industry and with local governments and utilities to curtail enough demand that the Cal ISO will not need to go to Stage 3 Alerts in our area.

We urge Congress to act swiftly to streamline the permitting process for new power plants, to encourage private investment in new power generation for regions like the San Francisco Bay Area, where the shortfall between generation and demand are great and no generation has been added for decades. The need for power transmission into regions like the Bay Area is great, therefore we urge Congress to help streamline the permitting and approval process of major transmission projects to bring the power to the demand to continue to fuel the economic engine of the Silicon Valley.

Mr. BURTON. Mr. Hamilton.

Mr. HAMILTON. Thank you very much. Thank you. My name is Dave Hamilton. I'm the policy director with the Alliance to Save Energy, a nonprofit, bipartisan coalition of government, business, environmental and consumer leaders dedicated to improving the energy efficiency of our economy, and I am here to be the good news guy. I'm here to talk about the things that can be achieved on the demand side.

In the spirit of your asking for recommendations about what the Federal Government can do, what I would say first and foremost is not to ignore the demand side. The administration has put forward many recommendations that have been based on that, but our urging to you is to not dismiss it out of hand.

People are paying more attention to energy right now than they have in 20 years, but if you are a homeowner and have to drive to work over a long distance or heat with fuel oil or natural gas, you know you are paying substantially more for subsistence expenses than you were last year. If you live in areas, as we just heard, vulnerable to electric supply disruption, you could be paying three times what you were paying last year.

I read an article a couple of days ago that said we are not in an energy crisis, we are simply seeing a normalization of prices that were abnormally low for most of the decade, the 1990's. Frankly, if you're a homeowner or a person on a fixed income, this is a crisis, and I don't think we should downplay that at all.

I'm going to address each of the spheres and, because of the time, just try to make a couple of points on each. But I want to talk about energy efficiency as an economic driver and something that's produced really substantial economic results that have not been widely disseminated. EIA rates the amount of energy that was saved through existing energy efficiency measures as 26 quadrillion BTUs in 1999. If you look at that size recycled or displaced energy, that is more than we generate with coal, more than we generate with natural gas, more than we generate with nuclear power. Energy efficiency has taken hold and has made a substantial difference to the American economy.

Second thing, energy efficiency, because it exists in every different way that you use energy in the economy, it is hard to quantify. You have to take each measure and look at it and see what it produced. But the RAND Corp. did a study for the California Energy Commission this year which was released in March which looked at California energy efficiency measures over the last 20 years and concluded that those measures had produced 1,000 percent per capita return on that investment. And the gross State product in 1995 would have been 3 percent less without the inclusion of energy efficiency measures which had been put in over time.

There is—also, these measures avoided a massive increase in point source pollution from not having to build power plants. And the study also talks about how lowered energy intensity, which is fewer dollars per unit of economic output, is fertilizer for economic growth because \$1 for keeping the lights on is not as productive as \$1 invested or \$1 spent on innovation. And freeing up dollars to re-invest in the economy is a highly productive use of capital.

And frankly, Mr. Chairman, demand management kept the lights on in California this summer. Interruptible service contracts, energy efficiency, basically hand-to-mouth attempts to keep the lights on were facilitated completely by demand management. And when we look back at the summer of 2000, it was the demand side which kept us away from a crisis in California.

When we talk about crude oil supply, Mr. Chairman, there is an inexorable equation going on. Domestic supply is going to fall over the long term; domestic demand is going to increase over the long term. We are going to have to import more oil, or we are going to have to change the way we do transportation and some of our heating things. It is not—it is not, you know, a huge thing to understand. We have to either figure out different fuels to power motor vehicles on, or we have to make sure that each motor vehicle uses less than they would otherwise.

You know, it is a long-term decision, and you can make decisions about domestic supply, to pump it up in the near term, but over time it is going to fall.

You know, and now we have a revitalized OPEC that appears to have actually gotten organized and appears to be having some success at keeping prices up. So I'm not sure that we can rely on a, you know, disorganized OPEC in the way we were in the early 1980's.

We talked a lot about heating fuels and why prices are the way they are. As a homeowner, all you can do at this point is try to make sure that your home is as energy-efficient as possible. Make sure that your home is as well-insulated as possible, that you have a set-back thermostat that can control when you need heat and when you don't. Make sure your furnace and boiler is cleaned and tuned. There is not much that consumers can do now except to try to batten down the hatches and do the best they can.

A lot has been said about natural gas today, but we made a huge national wager on natural gas. The vast majority of projected new generation is in natural gas not because of an administration mandate, but because combined cycle gas turbines have become the cleanest, cheapest way to generate electricity, and utilities have opted for that as a business decision.

You know, we are now out on a limb with natural gas supply, and Mr. Pursell's results are disturbing over time. This volatility was not restricted by EIA, and it changes almost all of their long-term forecasts. And you can't separate natural gas from electricity reliability. Brave new world predictions about electric competition predicted a kind of vast superhighway of electricity where buyers and sellers from distant regions of the country could trade and lower prices for everybody. We don't have a superhighway. We are trying to put rush hour traffic through local two-way roads, and it is not working.

California got hit hard this summer, but the Midwest and the East dodged a bullet because of mild summer temperatures. New transmission and generation are needed, but lead times leave us vulnerable—in a vulnerable state for many years. I listened to Virginia Power executives talk about 15 years in the friendly era of monopoly that it took them to get a transmission upgrade from

planning to juice in the wires. We've got to figure out something to do between now and then.

Demandside management saved this Nation 30,000 megawatts of power in the 1990's. Half of that was done by energy efficiency. Two-thirds of it was done between 2 and 3 cents a kilowatt hour, and that is at the spending rate at the high point of \$3 billion a year by utilities. That spending rate with utility energy efficiency programs has dropped by 70 percent. Demandside management expenditures have dropped by 40 percent.

The new basically—as States have deregulated, it is no longer in the interest of the utility, because they are not vertically integrated, to save energy to avoid having to build new power plants. If you are a distributor now——

Mr. BURTON. Mr. Hamilton, let us get to some questions. We will probably have some questions based upon the statements that you made.

Mr. HAMILTON. OK.

[The prepared statement of Mr. Hamilton follows:]

**TESTIMONY OF DAVID HAMILTON
POLICY DIRECTOR, ALLIANCE TO SAVE ENERGY
BEFORE THE HOUSE COMMITTEE ON GOVERNMENT REFORM
REGARDING THE EFFECTS ON CONSUMERS OF INCREASES IN
GASOLINE AND NATURAL GAS PRICES, THE CRUDE OIL SUPPLY SITUATION,
AND ELECTRICITY RELIABILITY
September 20, 2000**

Mr. Chairman and Members of the Subcommittee, thank you for the opportunity to testify before you today regarding the current crises in U.S. energy supply, demand, and distribution. My name is David Hamilton. I am the Policy Director of the Alliance to Save Energy, a bipartisan, non-profit coalition of business, government, environmental, and consumer leaders dedicated to improving the efficiency with which our economy uses energy. Senators Charles Percy and Hubert Humphrey founded the Alliance in 1977; it is currently chaired by Senators Jeff Bingaman and James Jeffords as well as your colleagues, Representatives John Porter and Ed Markey.

Seventy companies currently belong to the Alliance to Save Energy. If it pleases the Chairman, I would like to include for the record a complete list of the Alliance's Board of Directors and Associate members, which includes many of the nation's leading energy efficiency firms, electric and gas utilities, and other companies committed to cutting both their own energy bills, and those of other businesses and consumers.

Mr. Chairman, thank you for inviting me here today to speak about solutions to the potential energy crisis this winter and beyond. The Alliance to Save Energy was founded by Senator Charles Percy in 1977 in response to the oil shocks in that decade. Those events threw our nation into an economic recession and changed forever the way this nation thinks about its energy supply. But since that time, Mr. Chairman, we have been long on thought about energy policy and very short on action.

Large and small consumers of energy now face a double threat -- they are paying skyrocketed prices for energy and have to address uncertainty of supply. Fundamentally, these threats have a single source. Demand for energy in this country is outstripping affordable and reliable supplies. Some industries and policymakers will call only for new supplies, when the fastest, cheapest, and cleanest way to help consumers -- in both the short and long-term -- is to cut demand by using energy more efficiently.

Mr. Chairman, the last attempt to consider a comprehensive energy policy was during the debate over the Energy Policy Act of 1992 (EPAct). That law made some significant decisions about energy policy. It began the deregulation of the electric system. It provided tax incentives for wind and solar energy, while giving Alternative Minimum Tax relief to independent oil and gas producers. EPAct expanded research and development of energy-efficient technologies and enacted a further round of consensus appliance efficiency standards, as well as putting new requirements on the federal government to reduce its energy use.

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The absence of several provisions in EPAct also made critical decisions about energy policy that have had huge implications. The legislation did not contain any provision to raise fuel economy standards for cars and trucks. By leaving this controversial issue untouched, Congress and the Administration decided to leave the issue of oil supply, gasoline price, consumption, and technology to chance – to let market winds blow as they might and let wishful thinking serve as the guiding force for energy policy.

One of the most recognizable phrases in American life, Mr. Chairman, is the one that deems that those who do not learn from history are doomed to repeat it. I heard this in elementary school, on up through high school and college. It rolls off the tongue with a certainty that is rarely challenged. The situation in which we now find ourselves with respect to fuel prices is an egregious proof of the old maxim. Mr. Chairman, we spent the eight years since the passage of EPAct hoping, with our eyes closed and our fingers crossed, that oil prices would not rise, that OPEC would fail to regain its internal cohesion, hoping against hope that we would not have to pay politically or economically for our inability to protect ourselves from energy price fluctuations.

And for awhile Mr. Chairman, the skies were sunny. During the middle of the 1990s, gasoline hit its lowest real price since World War II. Attempts to address our continued vulnerability to oil prices were met with, “don’t worry, be happy.” Five years ago, people told us at the Alliance to Save Energy that our attempts to promote energy-efficiency were falling on deaf ears because energy prices were so low that they didn’t even register as a concern in public opinion polls. The polls have changed, Mr. Chairman. Wishful thinking won’t cut it with the American people now, as the polls now scream that gasoline prices are now their number one issue of concern. We face a variety of crises in energy now. The highest crude oil prices in years are only one. California reeled this summer under multiple alerts and only narrowly avoided widespread blackouts due to dangerously low supply margins and transmission bottlenecks. The wholesale price of natural gas has doubled during the past four months, practically assuring that families and factories all over the nation will face much higher heating bills the coming season. And what about the broader question of crude oil supply? Clearly, attempts to persuade OPEC to lift production curbs have not succeeded as an energy policy.

It’s not hard to sum up the effects on consumers of this set of crises. They are paying much higher prices than usual, they are not happy about it, and the future holds nothing but worry and uncertainty. Gasoline has become a much larger share of household expenses. With respect to heating oil, natural gas, and electricity, what was once a certainty is no longer. Heating oil supply and price fluctuated wildly last winter. Will the same happen with natural gas at twice last year’s price? Can consumers affordably heat their homes? Will there be enough power next summer on hot days to keep the lights on, the food fresh in the refrigerator, and computer systems safe from interruption?

In addition, Mr. Chairman, other factors have come to bear on the nation during the past decade. We have witnessed the rise of global climate change during the 1990s – the hottest decade on record by far. Not only is climate change a direct function of our reliance on fossil fuels and our uncontrolled demand for energy, a warmer climate is contributing directly higher air

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conditioning usage and thus to problems with electricity supply and distribution. With respect to climate change, wishful thinking has again been standard operating procedure.

Mr. Chairman, I come here making the same case that the Alliance made in 1992 during the Energy Policy Act. Energy-efficiency is a fundamental answer to each of these problems. It's time we wake up, Mr. Chairman, and look at our energy situation from the perspective of both supply and demand. The pure supply-side strategy has led us to the situation we are in now. Wishful thinking that the market will provide secure supplies of energy has led to real hardship for American families, with only more to come down the road.

Energy-efficiency – in passenger vehicles, homes, offices, and industrial processes – can lead us to a much more stable energy future. And while investment in demand reduction leaves us less vulnerable to foreign cartels, price fluctuations, and supply disruptions, that investment also puts dollars back into the pockets of Americans and improves our environment by reducing pollution. We can address the root cause of climate change at low cost by creating, building, and selling more efficient cars, trucks, computers, air conditioners, appliances, and industrial motors. But we can only do this, Mr. Chairman, if we, as a nation, are willing to end energy policy by wishful thinking.

You have asked that I address price and supply issues regarding crude oil, gasoline, natural gas, and electricity. I will do this in turn after giving some background on energy efficiency and transforming effect it has had on the economy and the environment.

Energy Efficiency as an Energy Source

In order to gain a more full appreciation of the value of energy-efficiency and reducing demand, we have to think differently about our nation's energy supply. Too often, energy-efficiency is regarded as a "nice thing to do," or something that we would do "if we could." Mr. Chairman, energy-efficiency is a driving force in our economy. In fact, it supplies -- or recycles -- more energy to our economy than any source other than oil.

Energy Administration data for 1999 shows that energy-efficiency is responsible for contributing 21.8 percent of our available energy supply:

Domestic and Imported Oil	37.7 Quads	30.8%
Energy Efficiency	26.7	21.8
Natural Gas	22.0	17.9
Coal	21.6	17.6
Nuclear	7.7	6.3
Geothermal & Renewables	3.5	2.9
Hydro	3.4	2.8

These results indicate that fossil fuels had fallen to 66 percent of our nation's energy supply in 1999. In no way do we believe that fossil's share of our energy mix is insignificant, or less important when considered as a lower percentage share. However, getting into our heads that

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energy-efficiency measures provided more than one-fifth of our nation's energy supply takes some getting used to, and it is why it bears repeating in light of our current energy crises. Mr. Chairman, slowly, but surely the facts are bearing out that energy-efficiency has been a transformational force in our nation's economy over the past 20 years. In order to make accurately informed decisions as a nation and as a government, we have to recognize not only the energy we use, the pollution we emit, and the dollars we spend for heat, transportation and industrial fuel. We must just as conscientiously account for the energy saved, the pollution avoided, and the dollars spent on more productive uses that have all been enabled by the use of energy-efficiency measures. Only then can we fully appreciate what an asset energy-efficiency has been to the U.S. Closer analysis will show, Mr. Chairman, that we have barely scratched the surface of what energy-efficiency can achieve.

Energy-Efficiency as Fertilizer for Economic Growth

Some critics attack the performance of energy-efficiency over time by saying that look, after all the money we have spent on energy-efficiency, we are still using more energy than we did before. This analysis is simplistic and inaccurate. The correct measure of energy-efficiency in the economy is not overall energy use, but energy intensity. Energy intensity is the amount of energy we use per unit of economic output. So of course our nation has grown in population and economic activity – and therefore in aggregate energy use. However, our energy use per unit of GDP has dropped significantly. For example, during 1998, U.S. energy use rose 0.3 percent, but energy use per unit of GDP fell by 3.5 percent.

In March of this year, the Rand Corporation completed a study assessing California energy-efficiency programs, entitled "The Public Benefit of California's Investments in Energy Efficiency". In it, the authors conclude that without the realized reductions in energy intensity in California between 1977 and 1995 – achieved largely due to energy-efficiency programs – the California economy (GSP) would have been 3 percent smaller in 1995 than it was.

They go on to say, "in other words, the benefit in 1995 to the California economy from improvements in industrial and commercial energy intensity since 1977 ranges from \$875 to \$1300 per capita ... from 1977 to 1995, California utilities spent a cumulative total of \$125 per capita (1998\$) on energy- efficiency programs in the commercial and industrial sectors." In addition, the study asserts that 1.6 million tons of nitrogen oxides, sulfur dioxide, carbon oxides, and smog-causing organic compounds were avoided by reductions in energy intensity. The Rand study goes on to detail how energy-efficiency, by reducing energy intensity, creates more fertile ground for economic growth. A dollar spent on energy is an unproductive dollar. A dollar spent keeping the lights on for another hour is a less profitable investment than one spent on innovation or marketing. An economy with low energy intensity is one that is ripe for continued economic growth. To fully appreciate the value of energy efficiency, we must undertake more efforts such as the recent Rand Corporation study to quantify its economic value to the nation.

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Crude Oil Supply

EIA expects that crude oil prices will remain high through the remainder of the year and well into 2001. Then, in theory, somewhere down the line, supply will again begin to outstrip demand and prices will fall. That is possible. But it is also possible, Mr. Chairman, that we are dealing with a new OPEC. Soon after the 1978 oil embargo, we saw OPEC fall apart as an effective organization and lose its ability to dominate world oil prices. This time, OPEC decided to squeeze consuming nations enough to jack up prices, then relax the pressure. Mr. Chairman, just that gentle squeeze by OPEC now has this nation in a potential crisis.

If you were the oil ministers of OPEC, and the price of your lifeblood just increased to the highest point in more than 20 years, I think that you would feel that the tactic had worked. You might even try to push it further, gradually squeezing the oil consuming nations more and more tightly. Mr. Chairman, the EIA forecast for lower prices next year are completely dependent on OPEC significantly increasing production. I don't believe we can afford to count on this happening.

Two of our main uses for oil, Mr. Chairman, are for transportation and home heating. Obviously, transportation is by far the greatest use. Our dependence on foreign supplies has grown to well over 50 percent and is forecast to top 60 percent during this decade. The argument over whether to drill in the Arctic National Wildlife Refuge is nearly irrelevant. At best, it is only a stopgap measure that might yield the nation a few weeks worth of oil. Our domestic production of oil cannot effectively keep up with our increasing demand. Making domestic production the issue is no longer a credible way to address national energy policy. We must reduce our thirst for petroleum.

Gasoline Price Increases

The fuel economy of automotive fleets sold in this country peaked in 1988 at 28.5 miles per gallon. Now, cars going off the road and out of service are more efficient than the ones coming on. At a time when gas prices are high and looking to stay high, our fuel efficiency is moving in the wrong direction.

The last major push for an increase in CAFE standards came in 1991. The political might of the auto companies was sufficient to put down that effort, and the auto companies themselves became perhaps the chief proponent of the strategy of energy policy by wishful thinking. It worked well for them, because the policy of wishful thinking allowed the auto industry to increase the size and performance of the average vehicle, while decreasing fuel economy, all with the cooperation of the federal government. Now American consumers are faced with prices still 50 percent greater than the amount they paid for a gallon of gasoline a year ago. And chances are great that they drove to the pump in a sport utility vehicle that falls well below the CAFE average.

The auto industry has traditionally argued that they could not increase CAFE because the technology did not exist. They claimed it would mean less safe cars, cars that are too small, cars that nobody wants to buy. In part as a response to these complaints, the federal government

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created the Partnership for a New Generation of Vehicles (PNGV), a joint public private-partnership with the U.S. auto manufacturers to develop auto technology with the goal of producing a car that carries the size and safety level of a 1993 Ford Taurus, but that gets 80 miles to a gallon of gas. The federal input to PNGV has been roughly \$1.5 billion over the 7 years of the program.

The PNGV program has spurred a worldwide race in auto technology toward cleaner, more efficient cars. The first result of that competition has been the introduction in U.S. showrooms of gasoline-electric hybrid cars – specifically the Honda Insight and the Toyota Prius that can travel more than 70 and 60 miles per gallon respectively. In addition, each of the U.S. manufacturers has created a prototype car intended for full production within the next three years.

Further, PNGV has made strides in emissions reduction, advanced lightweight materials for safety, and other areas. It is time for taxpayers to start getting back their investment in auto technologies that many believed the auto industry should have achieved on its own. Because of PNGV, the technology and safety should be off the table as impediments to increasing CAFE. PNGV sought to leapfrog the modest increase in CAFE sought in 1991. With these hurdles out of the way, it is high time to relieve what has become a crisis situation for the nation – and support an increase in CAFE standards to at least 45 miles per gallon. Though recent announcements by Ford and General Motors of efforts to voluntarily increase the mileage of sport utility vehicles are positive developments, increased CAFE is the best way to safeguard national economic security, reduce carbon emissions, and bring petroleum demand under control.

Natural Gas

This country has bet a lot on natural gas. The vast majority of new electric generation planned in the states will be powered by natural gas. Most new homes going on the market this year are heated by natural gas.

All of a sudden, natural gas supply has proven to be remarkably fragile. The wholesale price per thousand cubic feet has roughly doubled since the beginning of the year. Storage levels in this injection season are nearly 20 percent lower than last year. EIA speculates that imports may rise significantly, and that fuel oil will become a cheaper source of fuel to generate electricity until late next year.

The wager that we have made on natural gas as the energy source of the future now needs to be reconsidered in a climate of major price instability. As states have deregulated their electric systems, many have opted for set pricing in a first stage of transition. Many of these decisions were made in a climate of cheap, stable, natural gas prices. It will be interesting to see whether a high, unstable price will destabilize any existing state restructuring arrangements.

By far, the most important consideration, however, is the effect that higher prices will have on homeowners that heat with natural gas. Far more Americans heat with gas (52 percent) than fuel oil (10 percent). If price and supply constraints sent heating oil users into a crisis this past winter,

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a natural gas spike could send shock waves orders of magnitude larger both economically and politically.

EIA estimates that consumer who heat their home with natural gas will pay upwards of 25 percent more this winter than they did last year. This increase is potentially devastating to the household budgets of millions of Americans. Mr. Chairman, in an era of prosperity, this is a sad Christmas present to give the American people.

Electricity Reliability

Roughly half of the states have now passed legislation to restructure their utility systems, Mr. Chairman. Some states have fashioned plans for legitimate competition, while others have merely cemented the market position of existing utilities for the near term. There is currently little uniformity in the ability of generators to sell and distributors to purchase power off the grid in states and major metropolitan areas.

The early calls for competition in the electricity industry often painted a grand picture of a seamless national superhighway through which suppliers and customers from distant regions of the country could buy and sell power. Mr. Chairman, the reality is that we're trying to put rush hour traffic through two-lane roads. The existing transmission system was created to satisfy regional and local demands. Without major transmission upgrades, it will not effectively serve as the power superhighway envisioned by a brave new world of electric competition. Transmission bottlenecks have created the possibility of significant interruptions in service during periods of peak summer demand, yet upgrades could take many years before relieving vulnerable areas.

Mr. Chairman, we can all agree that attempts to fashion a truly comprehensive federal restructuring are dead for the year. While the House could still pass a bill creating a reliability governance body, it will not materially affect future potential blackouts, brownouts, and price spikes. In fact, I don't believe that state and local public officials should plan on relief from federal legislation anytime soon. That is not because it can't or won't happen -- although it still remains a daunting political task -- but because state and local officials must start thinking about what they can do to reduce their risk of power interruptions and shortages.

The federal restructuring debate has thus far been very long on attention to the supply side of the equation, and short on focus on the demand side. Mr. Chairman, as we see it, we aren't looking at a power shortage as much as we are faced with highly inefficient air conditioning, lighting and other machines. If we cut peak demand, we are addressing the heart of reliability problems -- not focusing on building our entire grid system to specifications that are only required a few times a year.

Mr. Chairman, demand side management and energy-efficiency measures literally bailed California out of catastrophe this summer. Interruptible contracts and incentives to reduce air conditioning use at peak times were the difference between light and dark in the Golden State.

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While transmission solutions must be pursued and reserve generating capacity must be restored, the fastest, cheapest, and most effective short-term solution at the disposal of policy makers is reducing air conditioning demand on hot days. This can be done by making buildings more efficient – both new and existing – and providing incentives for the purchase of high-efficiency air conditioners.

Demand side options generated significant economic savings during the past decade. Demand management and energy-efficiency accounted for reduction of 30,000 MW peak demand during the 1990s through state mandated and voluntary utility measures. Roughly half of that came from energy-efficiency options. Mr. Chairman, two-thirds of that amount was achieved for between 2 and 3 cents a kilowatt hour, a price that is looking better every day with increased natural gas prices.

But, Mr. Chairman, those energy-efficiency investments are drying up at just the time that we need them most. Utility investments in energy-efficiency have fallen by more than 70 percent since 1993. The reason for this is documented, as utilities saw the onset of competition and became less sure of their future market, and their ability to benefit from longer term investments in efficiency became less certain. However, if these cheap, highly effective reductions in peak demand had continued throughout the nation, we might be facing a considerably more stable situation relative to reliability.

State and local officials have ample motivation to undertake demand side measures to lessen their vulnerability to shortages and other incidents. The greatest might simply be self-preservation. When the lights go out, Mr. Chairman, people get mad. And they aren't going to be mad at the head of the RTO, or the Chairman of the FERC. They'll be mad at their elected representatives for not keeping the AC on. With uncertainties about when transmission relief will come to reliability hot spots, unstable conditions may realistically remain for years to come. States, cities, towns, and co-ops – especially entities that are transmission dependent – should take a hard look at how they can reduce peak demand.

Take the city of Austin, Texas. The Austin City Council showed great foresight several years ago and instituted an aggressive set of incentives for energy-efficiency. These included new building design, retrofit of existing buildings, and rebates for the purchase of energy-efficient air conditioners. Since the early 1990s, Austin has managed through several tough cooling seasons without having to buy a single kilowatt off the grid, fully avoiding any interruptions or other incidents, and avoiding 402 megawatts of peak demand. (As the local utility, they also avoided having to build a 400 megawatt coal plant, with its attendant sulfur, nitrogen, mercury, and carbon emissions.)

My advice to Governors, Mayors, City Councils, and others is: use your surplus to reduce electricity demand. These investments pay off in spades as we find in the Rand study of California. You attack the core of reliability, peak demand. You reduce pollution for your community. Finally, it is insurance against the delays of the legislative, permitting, siting, and construction processes for new generation and transmission.

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The Alliance has supported providing help to states to make just these kind of investments. From the outset of this debate, we have advocated the creation of a public benefits fund that would match state expenditures on a variety of public goods that states used to be able to compel utilities to do. Because competition has limited states' ability to make utilities invest in such things as universal and affordable service, energy-efficiency, and renewable energy, a public benefits fund would give them assistance in bolstering their state or city from the uncertainties of reliability and fluctuating prices.

New power plants and beefed-up wires grids are important parts of the blackout-prevention solution. But energy efficiency is not only cheaper in most cases, it also saves consumers money on energy bills and reduces air pollution. It can be the least expensive form of blackout insurance; let's not wait to buy our policies until the next blackout hits.

Conclusion --

Mr. Chairman, thank you again for giving me the opportunity to speak before the Government Reform Committee today. The Alliance would like to put forward four specific recommendations for federal action to reduce the potential magnitude and impact of coming energy crises:

- pass tax incentives to stimulate the purchase of energy-efficient appliances, homes, lighting, heating and cooling equipment, motors, and other energy-efficient products and services;
- increase federal investments in research, development, and deployment of energy-efficient technologies. Returns from these programs have far outstripped the financial investments we have made in them;
- enact a public benefits fund in any federal restructuring legislation to provide more resources to states to better protect low-income consumers from price and supply volatility and increase electricity reliability through targeted investments in energy-efficiency;
- pass legislation requiring more fuel-efficient vehicles – cars, SUVs and light trucks.

These measures, Mr. Chairman, will go far toward adequately addressing the demand side of the energy equation. I'd be happy to address any questions you or other members of the Committee might have.

Mr. BURTON. Let me start with Mr. Shays.

Let me then start. I have a few questions here. I was looking at your map, Mr. Pursell, when you put that on the screen. We can put that up on the screen again if you have that close by.

Mr. PURSELL. That's exhibit I.

Mr. BURTON. Exhibit I, yes. And when I looked at that, it looks like there are huge, huge gas reserves in the continental United States. And this doesn't show Alaska. I imagine there are some up in Alaska as well, aren't there?

Mr. PURSELL. Yes, sir.

Mr. BURTON. How many years of natural gas supplies do we have, do you think?

Mr. PURSELL. The estimates vary.

Mr. BURTON. Give me a rough idea.

Mr. PURSELL. Probably 40 or 50 years.

Mr. BURTON. Minimum?

Mr. PURSELL. Minimum.

Mr. BURTON. So we have a 40 or 50-years' supply of natural gas that we could tap into right now. Why aren't we tapping into it?

Mr. PURSELL. Currently the United States is running at record natural-gas-directed drilling. We have well over 800 drilling rigs today drilling for natural gas. The prior high was back in 1997, around 640 rigs. The industry has responded to the pricing. The issue is trying to meaningfully grow production in the near term. It has to do with the decline rate of the underlying base, which we estimate the current base production declines at about 23 percent per year. But in perspective, on a 50-BCF-a-day productive base, the industry has to replace about 12 BCF a day just to stay flat. Now we are trying to achieve 2 to 3 percent volume growth.

Mr. BURTON. No, I understand. But it seems to me if we have this large reservoir of gas, we could put more wells, more well-drilling apparatuses into service and drill to get the production up. I mean, is that a problem, producing the additional gas?

Mr. PURSELL. It is in existing basins. If you look at the decline rate trend graph in the Gulf of Mexico, what happens in a maturing basin as you apply new technology, 3D seismic technology, more efficient horizontal completions, the target size for new reservoirs becomes smaller and smaller, but yet we more efficiently produce those, and that combination creates these accelerating decline rates.

So it is difficult in a mature basin like the Gulf of Mexico to meaningfully achieve production growth. So even though you have some economic projects, they are not the kind of projects you need to achieve the kind of growth we project over the next 10 years, which says you probably have to access some of these areas that are—historically been off limits because that is where you can presumably find these larger reservoirs.

Mr. BURTON. I guess that is what I am trying to get at. Some of these reservoirs that are off limits would be more productive.

Mr. PURSELL. Yes, sir.

Mr. BURTON. Why are we not drilling in those areas?

Mr. PURSELL. There are not Federal lease sales in the areas that are shaded offshore due to environmental restrictions.

Mr. BURTON. So the environmental restrictions are keeping you from drilling in areas where you have large reservoirs of gas?

Mr. PURSELL. Large potential reservoirs, yes. You don't know until you go drill it, but the geoscience folks will tell you that there are some real opportunities there.

Mr. BURTON. It's there. So the problem with increasing our natural gas production right now in large part rests with environmental restrictions?

Mr. PURSELL. Yes, sir.

Mr. BURTON. Why are those environmental restrictions there? I don't understand that, because natural gas is supposed to be such a clean-burning and efficient energy source. Why are they restricting the drilling? I mean, what's the environmental problem?

Mr. PURSELL. That's a question for somebody else. I don't know what the significant issues are, other than they are restricted. I mean, and ultimately anywhere you find natural gas, you do have the potential to find oil. That may indeed be the concern.

Mr. BURTON. Uh-huh.

In California, Mr. Lane, you said your plant was all but shut down. You had a transmission that was burned up.

Mr. LANE. Our main transformer from the power company burned up.

Mr. BURTON. Your transformer was burned up, and you were hand-carrying diesel fuel to keep the operation going so that vital components of your business weren't destroyed. And it was going to cost you something like around \$6 million if they were destroyed.

Mr. LANE. They were about \$60,000 each, times 10. But the bigger hit is the production loss, 6 months at our second quarter rate would be about \$220 million.

Mr. BURTON. You said something about the problem with the power plant that was being debated right now out there being built which would help eliminate part of the energy shortage that you have, and also transmission lines being built quickly to bring in more through the grid system.

Mr. LANE. Exactly. There are two projects currently in the permit process, and one of them has already gone through some of the hearings.

Mr. BURTON. What is the problem with the permit process out there?

Mr. LANE. Well, I don't know exactly, but I know that it takes a lot of time to go through, and there is a lot of public hearings and a lot of opposition.

Mr. BURTON. How long has it taken so far?

Mr. LANE. I know that power lines take about 7 years to go through the process from the start of conception or, you know, the permit application phase through the actual installation and power phase. Power plants themselves take between 3 and 4 years to put in.

Mr. BURTON. Just talking about red tape it has to go through at Federal and State level to get the thing done.

Mr. LANE. A lot of it is State. I know a lot of it is State level, but there is Federal as well.

Mr. BURTON. Mr. Hamilton, you said something that kind of troubled me a little bit. You said that the consumer this year should batten down the hatches. I guess what you are projecting is that there is going to be some real energy shortages this winter, and we are going to have some people that are going to be really suffering if they don't do some of the things that you talked about, like making their homes more energy-efficient, because there is going to be shortages around the country. So that is your conclusion?

Mr. HAMILTON. Yes, absolutely. I mean, EIA expects a minimum of 27 percent price increases for natural gas. I mean, I heat my home with natural gas.

Mr. BURTON. Twenty-seven percent increase in natural gas.

Mr. HAMILTON. Over last year. This is retail price.

Mr. BURTON. And this is nationwide?

Mr. HAMILTON. I believe it was an average, yes.

Mr. BURTON. Do you have any figures like that for oil price projections this winter?

Mr. HAMILTON. I've got them in there, but I can't quote them from memory.

Mr. BURTON. Well, can you give me a rough idea?

Mr. HAMILTON. Because inventories for fuel oil are so low, you know, I think they basically said that it could be worse.

Mr. BURTON. Than last year?

Mr. HAMILTON. Definitely worse than last year. Could be worse than 30 percent.

Mr. BURTON. Well, if somebody can give me—is there anyone who can give me a more accurate figure than that? I see some people in the audience shaking their heads.

Mr. SANTA. Chairman Burton, I would point out to you that according to the figures that we have from the U.S. Census Bureau, based on average rates of consumption and pricing, this year it should cost about \$1,000 to heat an average home. I would—and that is in 1984 adjusted dollars. I would point out to you that in 1984, it was about \$1,300 to heat with oil.

So it's even with the price being at the height that it is right now—

Mr. BURTON. Give me a comparison with last year.

Mr. SANTA. Last year it was about \$500.

Mr. BURTON. So it is going to be double last year.

Mr. SANTA. That's right, but not yet back to the price of the early and mid-1980's—

Mr. BURTON. I understand, but people who are living in these homes today are not concerned about 15 or 20 years ago. They are concerned about last year as opposed to this year and their income level.

Mr. SANTA. Sure they're not. Their income levels, however, have moved up from \$31,000 average to \$56,000 average. So things have changed for them, too, haven't they?

Mr. HAMILTON. I found a passage, which is that residential heating oil prices are projected to average \$1.31 per gallon, or about 30 cents more per gallon compared to the same period last year.

Mr. BURTON. So you are looking at at least 35 percent increase. Mr. Waxman.

Mr. WAXMAN. Thank you, Mr. Chairman.

Our country experienced the energy crisis in the 1970's, and here we are as a Nation heavily reliant on oil as a major source of energy. Americans have seen a spike in the prices of natural gas and electricity. Mr. Hamilton, what in your view is the main reason why our country is vulnerable to these energy price hikes?

Mr. HAMILTON. As the chairman and others said in their opening statements, we basically had an energy policy of wishful thinking for a number of years, and the wishful thinking was that prices would stay low, and we did not prepare, and it's *deja vu* all over again. If we take short-term, stopgap measures to deal with it, we are going to be in the same spot in 10, 15, 20 years.

Mr. WAXMAN. What in your view should we be doing to lessen our dependence on oil?

Mr. HAMILTON. On oil specifically I believe we should raise CAFE standards. We should make our motor vehicles more efficient. We should have automobile standards of 45 miles a gallon and light truck standards of 34 miles per gallon. We spent a decade building better technology to implement this. Ford and GM have made announcements that they will voluntarily raise the fuel economy of SUVs. It is not going to be enough. We need—you know, the price of crude is a combination of heating and transportation and everything, but the bite of transportation has to be lessened if we're going to be able to lessen our dependence on foreign sources.

It is the equation I talked about earlier. Domestic demand goes up, domestic supply goes up, imports have to go up unless we reduce demand.

Mr. WAXMAN. Mr. Pursell, I don't really have a question—let me just ask you this. As I understand from your company documents, your clients include USX, Capital Corp., Brown & Root, Sungroup Energy Services, Andrews Petroleum, Gulf Canada Resources, Union Pacific Resources, Petroleum Geosciences, and dozens of other companies with interests in oil and gas prices; is that right?

Mr. PURSELL. That's correct.

Mr. WAXMAN. And as I understand your testimony, you think that one of the ways to deal with this problem is to allow drilling in the outer continental shelf. Now, there has been bipartisan support in the Congress to not allow drilling off our shores. It seems to me that there has been little evidence that if we gave up our shores to drilling, that we are going to solve this crisis. A lot of people, consumers particularly, say that what we need to do is to look at consolidation of the industry and mergers of gas producers. Do you think that that's a factor?

Mr. PURSELL. I mean, ultimately with natural gas—and I hope to answer the question. With natural gas you don't have the specter of OPEC out there to add production by simply turning a valve—

Mr. WAXMAN. The problem is that I have only a limited time. But my question to you specifically is one solution you think would be to allow our beaches, shorelines, and outer continental shelf to be a source of new drilling. But some people say what is going on is the industry is changing. They are merging, they are consolidating. Do you dismiss that consolidation and merger trend as any

reason for us to look at this crisis as maybe being attributable to that?

Mr. PURSELL. Yes. I think the lack of ability to grow supply is a function of key maturing basins. It is a function of reduced activity level in response to \$1.60 natural gas and \$10 oil. And there is a—although the industry has indeed picked up activity, there is a lag effect, and I would propose that supply and demand will meet, and they will meet violently if supply growth doesn't occur.

Mr. WAXMAN. It just strikes me that if we are looking at supply and demand, that this country should have been looking for energy conservation, renewable energy and related matters. But the Congress has consistently appropriated less for energy conservation and renewable energy than was requested by the President. For energy conservation, Congress appropriated \$870 million less than was requested. For renewable energy, Congress appropriated \$425 million less than was requested. That's a total appropriation of \$1.29 billion less than requested by the President.

Mr. Hamilton, what difference would an additional \$1.29 billion have made in these accounts? And could that money have made a difference in the lives of people who are now fighting these high energy costs?

Mr. HAMILTON. Yes, it could have made a difference. The first thing that happened in the fiscal year 1996 budget was that low-income weatherization was cut by 50 percent. That was a chop in half of a program to make the houses of low-income Americans more energy-efficient and thus less subject to price volatility.

On the technology side, the Department of Energy EPA programs such as Energy Star and other programs—I can point to six technologies that have resulted in GAO-audited studies of over \$40 billion returns to the U.S. economy. The entire investment in energy efficiency and renewable energy has been less than \$20 billion over 20 years. So that is just six technologies of the hundreds that have emerged from Department of Energy and the EPA and the national laboratories.

Federal expenditures on energy efficiency R&D have yielded tremendous results. I would have to think that a greater expenditure on them would have yielded more results.

Mr. WAXMAN. Thank you, Mr. Chairman.

Mr. BURTON. Mr. Shays.

Mr. SHAYS. Thank you, Mr. Chairman.

Mr. Santa, I'd like you to first mention—discuss the issue of carry.

Mr. SANTA. Yes, Mr. Shays. The concept of carry works like this. In a wholesale market, you need to have a certain amount payment from the market to both store your product and to inventory or finance your product. Generally speaking, in round figures those each cost about a half a cent a month. So, therefore, a normal carry market will have, let's say, over a 5-month period of time, a 5-cent differential. Let's say from August to January that would be about a 5-cent differential. That's a carry market in that market or something like that.

A rational, reasonable wholesaler can put product and is encouraged to put product in the market into his storage. If it's not there, he can't. It's not that he doesn't want to; he can't put it in there.

It's crazy. It's insane. Right now we are in that place where product now is about 3 cents a gallon higher than product in January.

Mr. SHAYS. Isn't it likely that the product in January will even be higher than it is today?

Mr. SANTA. Not necessarily so, because the market that we work with right now, the New York Mercantile Exchange, is an infinitely efficient, albeit merciless, price discovery mechanism. It is giving us a message. The message is the price of oil right now is too high, and it is going to come down in the fullness of time. It may not be tomorrow. It may not be next week.

Mr. SHAYS. So we will agree that it is too high now, and the expectation is it may be a little less in January.

Mr. SANTA. That's right.

Mr. SHAYS. But if you are not buying now, who is buying now to inflate that price?

Mr. SANTA. Actually the only individual—group buying right now is you, Mr. Congressman. The Federal Government is out buying 2 billion barrels for the Regional Petroleum Reserve, and quite honestly it is having the effect of keeping the market up right now. That will pass. You will get your oil. And some of it is in New Haven already, and some of it in New York already. When you get your oil, I think the market will start to back off.

Mr. SHAYS. Now, when I and others had suggested that we have a reserve and that we tap the reserve—one that we have, a home heating reserve here up in the Northeast, and that we tap the petroleum reserve in Louisiana, you and others came to us and said that's not a great idea. Explain why.

Mr. SANTA. Well, I can't speak to the strategic one in Louisiana because it's a little bit removed from our function, but I can speak to the regional one.

Mr. SHAYS. OK. Let's do the regional one, and then maybe someone could speak to it.

Mr. SANTA. As regards the regional one, there are two issues that are concerning to us about that. First is what is happening right now. Just buying it is propping up the market. Then we wonder when and how this product will reenter the market. It hangs like the sword of Damocles over all of us people in the wholesale business who are wondering when and how it will come out. It is very disconcerting if today you buy a product at \$1.05 a gallon, and tomorrow that gets released, and all the sudden the market falls to 95 cents, that could hurt a fellow if you bought 20 or 30 or 40 million gallons of product. It could hurt very badly.

So I'm not saying the government will be indiscreet about that, but I don't know how they are going to do it. And that is why I suggested to Secretary Richardson, why don't you guys stay in the tax business, we'll stay in the oil business. You give us a tax incentive when we do not have a carry, and we'll take care of the oil. And then if things work out nicely, then you get your tax incentive back.

Mr. SHAYS. Before I get to the Louisiana, if someone else would answer that, the concept of basically you're buying futures—you are trying to protect—you're trying to guarantee your customer a price. They guarantee you demand. You're basically just hedging your bet. You're just basically committing to a price, and then your

consumers have to pay for that price. They benefit clearly if price goes up, but then they probably logically think, my gosh, why am I paying more? Just walk me through that concept.

Mr. SANTA. First of all, let me state that this concept can apply to my colleagues to the left here if they are buying natural gas or diesel fuel or electricity, because all of those commodities are now traded on the Mercantile Exchange. Let's go to the question of that customer, the end user, and that is the person, as I mentioned earlier, we need to help out a lot. They just don't know.

They do not realize that in today's market they can buy supply, and they can sell risk if they wish to. What we do when we give them a capped price, and we sell them risk, we go to the commodity market. We buy a financial derivative. It costs us a couple, 3 cents a gallon, whatever the price happens to be. We buy that derivative, build it into the price. Now, what John Q. Homeowner gets is a beautiful thing. He gets a thing called a capped price, and a capped price is very simply one that will go no higher than some certain amount, and if the market backs off, it will go lower.

Mr. SHAYS. They will get the lower benefit?

Mr. SANTA. Yes. It is a win-win deal. They can't go wrong. But they have to commit. They can't play around. And that is the big lesson of our market today. Hop shopping for energy is a very, very dangerous thing to do. Our new energy price discovery and distribution markets are intensely efficient. It has changed this way, Chris, since 20 years ago——

Mr. SHAYS. We are going to have to close up because of the red light. Just finish your point.

Mr. SANTA. Twenty years ago we were driving around a Buick sedan, and that is what it was to buy energy. Today we're driving an Indy 500 car. It is a way different thing. It is built by different people, run by different people and used by different people for different things. We still get the energy out the end, but it is a way different vehicle. And right now people are trying to use that Indy 500 car to drive down to the supermarket and buy some paper towels. It doesn't work that way. It doesn't work that way. It works well, but it doesn't work that way.

Mr. SHAYS. Thank you.

Thank you, Mr. Chairman.

Mr. BURTON. Mr. Tierney.

Mr. TIERNEY. Thank you, Mr. Chairman. I just have to say that I am always fascinated that all the free-marketers have sort of come around that want to get government out of their lives are now wondering what happened to government when this crisis started. In fact, I think with this Republican majority, government has been out of your lives, and here you are.

Mr. Santa, you indicate that you think what's needed is the government to write you a check in order to cover the carry so that it will help the supply situation. Is that pretty much your situation?

Mr. SANTA. I'm suggesting this is an alternative to having a regional petroleum supply. We have done it before. Back in the energy crises of the 1970's, we came up with a——

Mr. TIERNEY. We may have done it before, but tell me—I assume that you are a big free market person, right? You love the beauty of the market and how it works efficiently and all that?

Mr. SANTA. That's how we live.

Mr. TIERNEY. How would writing you a check or giving you a tax incentive or whatever be part of the free market?

Mr. SANTA. Well, if there is an inordinate concern on the part of government about the supply of product—

Mr. TIERNEY. I'm not talking about the inordinate concern of the government. I'm asking you—it is your recommendation—or how our writing you a check or giving you a tax incentive comports with the beauty of the free market being able to take care of itself.

Mr. SANTA. I think that the market will take care of itself. And you know why? I've been at it 60 years, and I have never, ever, ever shut off one of my customers, unlike electricity or natural gas.

Mr. TIERNEY. So you are not advocating that there be a tax incentive?

Mr. SANTA. Not really. I offer it as an alternative. I offer it as an alternative.

Mr. TIERNEY. Mr. Hamilton, this Republican majority has been trying for a number of years to get rid of the Department of Energy. That was part of their big thing in the beginning when Newt Gingrich came in and he wanted to get rid of the Department of Energy. In fact, they filed a bill, I think, every year since they have been in the majority to get rid of the Department of Energy. Is that your idea of good energy policy particularly in light of what is going on now?

Mr. HAMILTON. We oppose the abolition of the Department of Energy, mostly because of the positive programs in the Office of Energy Efficiency and Renewable Energy. Without passing judgment on—and believe me, the oil guys believe that the Office of Fossil Fuels is just as important as do—you know, as do kind of other areas concerned with the Department of Energy.

Somebody has got to work—the Federal role of working with the private sector to make sure that they are aware and incorporating plans for new technology that would better their bottom line, reduce their emissions, and, you know, improve their competitive status has been an extremely important role to play. If you look at the Office of Industrial Technologies, they have sat down with their seven more energy-intensive industries and said, what are your R&D plans; how do you see the Federal Government playing a role; how do we help; and ultimately work on the goal of waste reduction and energy efficiency.

In buildings, in industrial, in helping the Federal Government use less energy, that office of the Department of Energy has been indispensable.

You know, I'm not going to pass judgment on the environmental management section of DOE, but there are other areas that have more opposition.

Mr. TIERNEY. Thank you.

Mr. Santa, I could go back to you for a second and that idea, one of the things that you threw out about doing something to cover the carry cost. Would it be just as reasonable to talk about giving a loan with lower interest to cover that period of time? I think you

mentioned you would like to have some incentives to cover that period of time at least just once, and afterwards it would revert back. Would it make any sense to talk in terms of a loan program with low or no interest to people to cover that period of time and then have it payable back and get over the hump?

Mr. SANTA. Congressman, quite honestly I had not pondered that. It might work. All I am saying is that this is a financial transaction. There is a couple different ways we can do it. The way that you suggested doing it is certainly one way.

But if I may point out, I think there is somewhat of a long history of subsidizing agricultural product prices, I'm really not that familiar with it, and quite honestly, I didn't agree it very much whatever. But that is what you guys do. Maybe there is a way we could do that instead of the Regional Petroleum Reserve.

Mr. TIERNEY. If we do nothing—if we go back to the free market deal here, if we do nothing, how long does the pain last, and how severe does the pain get before the market rights itself?

Mr. SANTA. I think that is an excellent question. If you would just go back to 1996, we had a situation almost exactly the same as this when there was almost no storage at this time of year, and the prices were bumping up some. Believe it or not, that market went into the tank in January 1997, dropped like a rock. It could happen again.

My sincere suggestion would be I don't think we need those things. I don't think the market needs those things. I think when there is demand, supply will come and fill it. Yes, there will be a price differential you have to pay, but quite honestly, as you probably know, we were paying prices for energy 18 months ago that were roughly equivalent to what we paid in 1939. That's OK. That was the year of cheap energy. This is the year of expensive energy. I'm sorry it will go down. There are only two things we know about the price of oil. It goes up and it goes down. And we don't know when or in what order.

And with all due respect, even all these wonderful people here, we just don't know. We try to predict as best we can. We do the best we can. We work hard to get that product here, but we really don't know.

Mr. TIERNEY. Thank you.

Mr. BURTON. Mr. Souder—oh, excuse me, Mr. McHugh.

Mr. MCHUGH. Thank you, Mr. Chairman.

To my recollection, nobody has seriously proposed eliminating the Department of Energy for about 5 years now, but given the activities of the Chinese at the atomic labs, given the fact that our national energy policy seems to be comprised of begging the Saudis to do better, I'm not sure that we shouldn't revisit it.

But in any event, Mr. Hamilton, you made some comments with respect to your recommended levels of CAFE and fuel efficiency standards for autos and for trucks. Autos was 40—

Mr. HAMILTON. Forty-five.

Mr. MCHUGH. Forty-five. And trucks was 34. If those standards were imposed and we could in some miraculous way have them in effect fully tomorrow, what would that do to the price of oil here in the United States?

Mr. HAMILTON. If we could do it miraculously tomorrow, I think it would reduce it significantly. I think it is roughly an equivalent increase in efficiency that we undertook with the 1975 CAFE law, which, in fact, has lowered our oil use 3 million barrels a day.

Mr. MCHUGH. I understand that, but what does dramatically mean? Give me how much per barrel.

Mr. HAMILTON. I can't—

Mr. MCHUGH. So you have not examined that to that detail?

Mr. HAMILTON. No, not to that level.

Mr. MCHUGH. I don't want to pose an unfair question. Thank you.

Mr. Pursell, your map—and there is no need to take the time to put it back up. I'm sure we have all looked at it very carefully. I don't think any of us—certainly I don't want to see us take an environmentally reckless policy toward some very sensitive lands in off-shore locations, but in your technical opinion, is there a way to access these kinds of reserves that have to this point been off limits to you for environmental reasons in a way that is environmentally responsible?

Mr. PURSELL. Yes, sir. There is no question that it can be done. I may be a bit biased. I started my career in Alaska. I think it is done right there. I think it can be done right down south.

Mr. MCHUGH. You feel absolutely confident of that?

Mr. PURSELL. Yes.

Mr. MCHUGH. Thank you very much.

Mr. Lane, you mentioned from the point of beginning of the regulatory process to the end of the construction and operation of a transmission line, it takes 7 years?

Mr. LANE. That was according to Don Hall of PG&E.

Mr. MCHUGH. You have no reason to doubt that figure?

Mr. LANE. No, because I have seen it in our area when they started the Los Esteros transmission project, which—to feed 230 KV power from Newark substation, which is in Fremont just north of San Jose, down to northeast San Jose. That project in entirety is going to take 7 years from the time they applied for a permit to the time it actually becomes live, hopefully in the summer of 2002.

Mr. MCHUGH. And in your opinion, beyond the construction time and such, the majority of that period is devoted to environmental and regulatory review, correct?

Mr. LANE. By far the biggest piece of it is. It is probably a 1-year project, 1½ years. They expect to start it hopefully spring of 2001, actual installation, and be done summer of 2002.

Mr. MCHUGH. So 5½ to 6-year period for environmental regulation only.

Mr. LANE. Exactly.

Mr. MCHUGH. Do you feel that the environmental concerns—and I would be the first to admit are legitimate—that that can be done in a compressed time?

Mr. LANE. Yeah, definitely. I think it can be done in less than half that time.

Mr. MCHUGH. Mr. Hamilton, do you agree with that, or do you think it takes 6 years to do this?

Mr. HAMILTON. As I mentioned in my testimony, I was at a reliability forum in which a Virginia Power executive talked about a 15-year project that it took from planning to getting juice in the wires. So I think 5 to 6 to 7 years might be optimistic.

Mr. McHUGH. I'm sorry, sir, and I apologize, I was out of the room when you presented most of your testimony, and I did not hear it on that point. I don't know the reference you're making. My question is on an environmental review of a project of a transmission line, is 6 years absolutely what we have to have, or you don't think it could be done any—

Mr. HAMILTON. I'm not an expert—I'm not an environmental expert on siting. I am not—or offshore drilling or anything else. I work on energy efficiency. So I can't say what is necessary or what's justified in any particular situation.

Mr. McHUGH. Let me suggest I don't think 6 years is very efficient to do anything in terms of review and regulation. And I think we have come far out of balance in that regard. And I see my time is up.

Let me just, if I may, Mr. Chairman, make a final observation. There is a lot of talk here about averages, and I understand that you have to have a common language to understand a problem. But my dad used to say, you know, if you put one foot in a bucket of boiling water and one foot in a bucket of ice water, on average you're comfortable.

It has been said that the price of oil today has gone up, but so have incomes. Well, I would just say all I know is my district. My district, the largest industry is the dairy farmer. The dairy farmer today is receiving the exact same price for his or her milk that he did 20 years ago. Not averages. Not adjusted. The same price. So when we talk about 100 percent increase, a doubling in the cost of energy not just to heat their homes, but to run their tractors, to run their equipment, to keep the barns ventilated, it is devastating, and it is this Congress's moral responsibility to do something about it now. And that's why I'm very proud of you, Mr. Chairman, for convening this hearing.

Thank you. I yield back.

Mr. BURTON. Thank you, Mr. McHugh.

Mr. Souder.

Mr. SOUDER. Thank you, Mr. Chairman. I wanted to ask Mr. Tilman a couple of questions.

I missed your testimony, but I read through it. Had you been on long-term energy contracts before? Because it said, I believe, that you had decided to go to long term, and then you weren't able to get a long-term contract.

Mr. TILMAN. Well, what happened was, of course, like California, Montana deregulated its electrical utility industry. Prior to that time we were on a long-term contract with Montana Power Co. And the way it worked in Montana, you had an opportunity to go out and get into the market, and at that time the market was not interested in long-term contracts. Everybody was more or less kind of feeling their way along to see how this was going to work out. And for about the first 18 month it worked out pretty well. We got some good energy prices. We had one contract that was for 6 months; one contract that was for 9 months. And during that proc-

ess, we were trying to get long-term contracts, and then all of a sudden the price just ramped up. And what that did, which make its real difficult, is that spot price ramped up that, started affecting the long-term price.

Now, today I can go get a 5-year contract which will guarantee—we are kind of like the milk farmer, we can't control the price of copper; will guarantee that we will be out of business because we cannot afford that price as it is today, because I can't go sell copper for \$10 a pound. It's fixed by the world market, just like milk prices is fixed in different areas. So I can get a contract, but the price has ramped up and now is continuing to stay high for the long term. It wouldn't do us any good to get a long-term contract right now because we would ensure ourselves of being out of business.

Mr. SOUDER. Mr. Santa, I'm interested in your response to that, because I've seen this in the steel industry in my district as well as we use a lot of copper because we are the magnet wire capital of the country in northeast Indiana with Phelps Dodge and Ring Magnet Wire and Essex and a lot of others who need the copper and whose response would be to go overseas if necessary if we don't have domestic production. We had a similar with Steel Dynamics where they had a huge spike in their energy cost. They had been buying in the spot market, and by the time they wanted to go to a long-term contract, it wasn't feasible to do business.

What seemed to me—because our problem is we are not really in free markets, we are in modified free markets. We restrict the production of energy, the offshore drilling ban, coal ban, so we are in a modified free market. And part of the dilemma here is that it almost sounds like you are saying that while distributors, oil companies ought to be allowed to have the prices move up and down with the market, but what happens when your users don't have the flexibility to move up and down with the market?

Mr. SANTA. Well, that's precisely why we have a program like a capped price, and we offer it to our consumers, who have ultimate choice. Do they want to take the risk with the price? Fine, do that, I'll sell you a noncapped price. Would you rather have the price capped? We will do that for you. We have got that offer for you, too. So it just depends upon the end user's risk tolerance. And because we sell industrials and municipalities and governments—

Mr. SOUDER. Let me ask another twist to that, because I understand the concept of risk tolerance. I have an MBA, and what they taught me first and foremost in business school, that a company can't handle high levels of risk. You can try to plan different things, but risk tolerance is a premium. But I can tell from talking to people in my district, and as the case that Mr. Tilman talked about, was there any precedent to suggest that you were going to have a 600 percent jump? In other words, did the energy companies come to any of their suppliers and say—you know, because historically weren't these prices varying 10, 15 percent? So your risk management, any kind of accountant or planning person is looking at a realistic range, and all of a sudden there is 600. Was there any warning of what risk tolerance was likely to be in this situation?

Mr. SANTA. Well, I think perhaps there should have been. Prudent people might have recognized that it was coming. Eighteen

months ago is when there should have been a hearing somewhere, someplace in the world about the crazy price of energy; \$10 a barrel was absolutely nuts, way too cheap.

Consider the Persian Gulf countries. Unlike America they don't have the steel and computers. All they sell is oil. That's it. The rough equivalent for us is if all we sold in America was Ford Tauruses, and people expected us on the world scale to sell them for \$638. That is what it would be like. That is what we were expecting Saudi Arabia to do, and others.

I am not here to promote crocodile tears for them in the Potomac. I'm just telling you what was crazy was that price. So, therefore, prudent people like ourselves, we try to be prudent, we recognized that as a crazy price. We bought a lot of stuff then because the price, it was too low. It was not realistic. Buying a commodity at the same price as you could buy it in 1939, that's crazy, Congressman. You shouldn't do that. So it had to adjust back up.

I agree, I understand, we are compassionate. No one—I respectfully submit that very, very few people in the retail business are as compassionate and close to our customers as the 10,000 heating oil dealers coast to coast. We love them. We are crazy about them. And we'll crawl on our belly for them, and we will viciously try to keep them.

The prices right now are higher than they were last year. Yes, I agree. You are absolutely right. But relatively speaking, what was crazy was last year's price crazy low. This year's price is not crazy high. And there are options for our end users to cap those prices if they wish to do so.

Mr. SOUDER. What I'd like to suggest, Mr. Chairman, and I am sure this will come up continuing through the hearings, is that while I'm sympathetic and understand the argument that is being made, the fact is that we have many industrial users in the United States and Indiana who cannot adjust. They simply don't have the flexibility to adjust to this much market, and that is why some of us believe that additional energy resources need to be developed, because we cannot exist with this type of thing. Copper prices won't go up. Ag prices won't go up. Steel prices won't go up.

My district produces pickups, RVs, boats. Are we going to deprive consumers the choices because some people decided we are going to restrict some energy development?

Mr. BURTON. The gentleman's time has expired. We will go to one more round at the request of the gentleman from Connecticut.

Mr. Shays.

Mr. SHAYS. Thank you, Mr. Chairman. Mr. Chairman, thank you for having this hearing today and the hearing tomorrow. I look forward to the other panel. I apologize to some of the other members there. We rarely get someone from the Northeast in New England to respond to some questions, and I would like to ask Mr. Santa some more questions.

First acknowledging this, that what I'm hearing you saying is that the private heating oil companies may be cautious about maintaining large stocks of heating oil, especially if purchased at higher prices, when the government could later enter the marketplace to sell its reserves, potentially driving costs down.

The irony to what you are saying to me is that while we want there to be a stockpiling, we think we are going to have a stockpile in reserve, and you're telling me—and I want you to verify it—that there is likelihood that you will not stockpile as much, and so they kind of cancel each other out.

Mr. SANTA. That's right. Right now that's the case, Mr. Shays. It will—it will settle out.

Mr. SHAYS. And I don't hear you—just to respond to my colleague, you're saying if the government is going to intervene, better do it from the tax side rather than the purchase side?

Mr. SANTA. I only submit and suggest that to you because that is what we look for you to do is to tax.

Mr. SHAYS. I understand. But the bottom line is I think I hear you saying if you are going to be intervening and distorting the marketplace, better to allow—your argument would be to allow it through tax incentives, which we do in a whole host of ways.

Mr. SANTA. Certainly.

Mr. SHAYS. Let me just run through a few questions. One of them that it is hard for me to frankly understand—not hard to understand, but I did not realize it was to this extent—you're saying in Stanford 20 years ago, where I basically spent 24–30 years of my life, we had 7 storage terminals. Today there is just one.

Mr. SANTA. Right.

Mr. SHAYS. When I see more than one terminal, that is a different type of terminal?

Mr. SANTA. It could be, but there is only one functional one down there.

Mr. SHAYS. Norwalk has gone from 7 20 years ago to 1 today; and Bridgeport, 12 terminals, now 3.

Mr. SANTA. Right.

Mr. SHAYS. What I am seeing there? I am getting confused. I see some at your facility. I go down the road a little further, and I see some at other end of the throughway.

Mr. SANTA. Right.

Mr. SHAYS. Are those not all—

Mr. SANTA. There is mine on the west side and two on the east side. That is basically it.

Mr. SHAYS. And you are all smart people. If you knew today—if you knew a few years ago what you knew today, would some of those terminals still be there?

Mr. SANTA. Well, their not being there has a lot to do with one of your next witnesses, the ExxonMobil folks. I don't mean to single them out particularly, but the world has changed. In 1980, in order to find out the price of product, all you had to do was go to the Wall Street Journal look up Exxon Cargo, New York Harbor, and that was the price discovery. Today it is a whole different deal. You go to that merciless Merc, and that is where you find the prices, and it is a very egalitarian market.

Mr. SHAYS. I just want to understand. So you are saying you are not going to take a risk of having it in the terminal because it is going to fluctuate almost on an hourly basis, Or more on a minute-by-minute basis. I'm just trying to understand why there are less terminals today than there were just a few years ago. And are you suggesting that the price is too volatile?

Mr. SANTA. The market is much more efficient. It is not that there is less terminals because the price is volatile. The price is volatile because there is less terminals. And back before 1980, an important time, the beginning of the Merc, the Mercantile Exchange, before 1980 there was a tremendous amount of storage maintained by these wonderful seven sisters and big major oil companies. And because there was so much of that, the oil price did not move up much, it didn't move down much. It was very predictable. Summertime down a little bit; wintertime up a little bit. That was it.

Mr. SHAYS. Would anyone else like to respond to the questions I asked? Anyone else?

OK. So to your knowledge, distributors across New England are holding off buying home heating fuel because at this moment they consider it too expensive?

Mr. SANTA. It's not too expensive, Mr. Shays. It's the configuration of the market. If product today was \$1.05, and the Merc had—

Mr. SHAYS. Relatively more expensive than it will be?

Mr. SANTA. Well, again, it has to do with the curve. If the market—if the Merc had a price 4 or 5 cents a gallon higher in January than today, fill them up. Everything you can get, buy it with both hands. When it's the other way around, you got to get your head examined if you are going to buy any product because you are going to lose.

Mr. SHAYS. Thank you.

Mr. SANTA. You're welcome.

Mr. BURTON. Which one of my colleagues would like to go next. Mr. McHugh, do you have more comments or questions? Or do you want to wait for the next panel?

Mr. Souder, do you have comments or questions at the moment?

Mr. SOUDER. I appreciate your patience with us, because even though I spent a lot of time with distributors in my district and others, this is a very complicated subject to learn. But there was one additional comment by Mr. Santa I wanted to followup on.

Are you saying that the reasons we partly did not have the fluctuations is that the large oil companies were cushioning that by purchasing over a long period of time and storing it?

Mr. SANTA. Mr. Souder, it was a whole different world. The basic supply of product came from large, integrated companies that took it from all the exploration, right down to delivery to the home. We started—we bought our franchise from Mobil Oil Corp. in 1940, delivering kerosene to homes. Before my dad bought it, Mobil delivered it to somebody's home. So they did the whole thing, and they were huge and wide and broad.

It's another world. It is a very diffuse market. There is a lot of players in it. There are very good players, but they play in a very efficient market. They cannot allow any more than absolutely the just-in-time amount of inventory, with the just right amount of storage, with the just right amount of movement vehicles.

Mr. SOUDER. As you well know, I'm sure, Republicans love to ask regulatory questions. How much—in other words, what you are saying, because it is more complicated, because of just-in-time inventories, because we subdivide into different sectors, there is

much more market responsiveness to the ups and downs of the market. How much of that has been impacted by regulatory reforms that hit at some parts of the market that have distorted the flow of things?

In other words, have the storage facilities had more regulation on them than other parts? Because there has been—certainly part of the disintegration is that some of the large oil companies have gotten rid of some of the things that don't give 10 to 20 percent returns on investment, because some of these things have a narrow hard investment. Have some of our regulatory decisions, in fact, because of this general flexibility in changes in market had a disproportionate impact on certain parts of the distribution system?

Mr. SANTA. That's an excellent question, Mr. Souder. Let me just point something out to you.

This is a very simple example here. We sell heating oil.

Mr. SHAYS. If he had not asked that question, this would have been a waste of time.

Mr. SANTA. That is OK. This is a good, useful petroleum product. We would have brought it home and used it again.

Once upon a time, we could just have kerosene and heating oil in our facilities. Now we have heating oil dyed red, diesel fuel not dyed red, diesel fuel .05 percent sulfur, heating oil that is no more than 3 tenths of a percent of sulfur, in Connecticut. In Massachusetts it is different and in New York it is different. And then we have kerosene. We have clear kerosene if we are going to use it for a motor fuel, but if we are going to burn it in the heater in our home, we are going to have it colored red.

This is nothing. Wait until the Mobil guys get up here and tell you about RFG and winter blend and summer blend. It drives them nuts. You keep chopping up the amount of storage that you have got into smaller and smaller bits and it becomes a little less efficient.

You have to understand, Congressman, we are breaking our backs to deliver energy to the American public. We have no animus with them. We are not aggrandizing them. They are friends. That is who we live off of. They bought this suit. We want to help these people. So that is an example. I could give you a few more, but that I think is one.

Look, your tax guys have a job to do, too. This is about taxes, this is not about supply. The other stuff about the RFG in the gas, that is about the EPA and about the environment. We understand that, and we have been very compliant with you. We have done everything you want and are trying to help you as best we can.

But understand, there is a price we pay for that. The price we pay is that it is not the old days. It is not the old days where Mobil-Exxon has a billion, zillion, million gallons in storage and the price will not go up or down. Now it is different.

Mr. SOUDER. How do we tell our constituents which parts of the rise in the cost are the price that we pay for doing these things? Because we are not able as a Nation or as individuals to actually make these decisions. In other words, if you get an RV or SUV, then this is what it may do to your fuel prices in the winter in another part of the sector. We are not being presented with those choices, even in Congress.

Mr. SANTA. Congressman, the best thing you can do is consumer information, letting them know what their choices or tradeoffs are, helping them understand they can buy product or risk. There is a great opportunity to buy product here.

Think about this: I mentioned this to you a while ago. The majority of my customers neither knew there was any dislocation of supply nor any rise in price last year. They had nothing to do with it, it was all set. Holy cow, that is pretty terrific. Don't you wish your steel mill could say that same thing? We can. We can do it, but it takes a little bit of commitment.

One of the things that just drove us nuts last year is the typical thing the gas industry does. They have these interruptibles. They do not contract with us, so when the gas company gets to the point where they cannot supply anymore, they can do something we can't do, they can cutoff demand. That is very nice. Then they expect us to come up with all the product to fulfill the demand that is still there.

Believe me, we try, but I am respectfully submitting to you that it is unrealistic, because this is 2000 and not 1970. It is unrealistic to think that we have that kind of product or storage or people or infrastructure to move into those kinds of things.

Mr. BURTON. The gentleman's time has expired.

Mr. Tierney.

Mr. TIERNEY. Mr. Santa, I had to step out for a second. I apologize for that. In my absence, some people understood that you made an inference, that but for the strategic reserve in New England, you would be full up in your storage.

Mr. SANTA. You skipped a couple of dots in the middle there, Congressman.

Mr. TIERNEY. Could you fill me in?

Mr. SANTA. What I was saying is that right now one of the few active buyers in the Northeast market is the Federal Government. With an active buyer and demand, that helps keep price up.

Mr. TIERNEY. Before there was any type of storage, there was still going to be a shortage of inventory, is that right? There was a shortage of inventory that led to consideration of that, right?

Mr. SANTA. With an evaporated market, that is what you have got. That is how it works.

Mr. TIERNEY. It is not the fact that because somebody is considering having a reserve, that creates a shortage.

Mr. SANTA. Oh, no. You have got that right.

Mr. TIERNEY. Who would you suggest is responsible for the interruptible contract situation?

Mr. SANTA. I think it is an unrealistic posture, both on the part of the end users as well as on the part of the natural gas utilities. Neither of these are malevolent individuals, but they generally are not realistic about what—the way the world really works.

An interruptible customer that actually interrupts and contracts with his product—and by the way, I supply millions and millions and millions of gallons to just those kinds of people, they have no problem. Their prices do not spike. Their supply is fine. Everything is great.

Where it is unrealistic is if an end user maybe just doesn't want to switch from oil to gas, doesn't want to go to the trouble, bid the

oil thing, "I will just run the natural gas." They are playing a dangerous game because they are interruptible. They can be interrupted. They ought, as a prudent person, just contract for it.

Mr. TIERNEY. Assuming that they are not acting as prudent people, do you have a remedy that you could recommend with respect to them?

Mr. SANTA. Well, I would say that there are two things that could be done, Congressman. No. 1, you might suggest or mandate, whatever, that they have sufficient storage, alternative fuel—

Mr. TIERNEY. Government regulation?

Mr. SANTA. Well, perhaps; maybe a tax incentive to do it.

Mr. TIERNEY. That is government, too, right?

Mr. SANTA. Already, by the way, natural gas is government-regulated.

Mr. TIERNEY. But you are asking for more—

Mr. SANTA. I am suggesting, why do we not just enforce the regulations that exist?

Mr. TIERNEY. Is there an existing regulation that would disallow interruptibles?

Mr. SANTA. No.

Mr. TIERNEY. Is there a regulation that would require them to have an inventory on hand for it?

Mr. SANTA. That would be a good idea. In New York State—

Mr. TIERNEY. There is not one existing.

Mr. SANTA. No. New York State is working on one now.

Mr. TIERNEY. Your remedies are regulation, or write them a check and give them an incentive?

Mr. SANTA. I guess so. I guess you could say that.

Mr. TIERNEY. What else do you recommend? Anything else?

Mr. SANTA. That they contract for interruptible service.

Mr. TIERNEY. To cause them to contract for that? What do you use as leverage to get them to do that?

Mr. SANTA. There are very extensive tariffs written for the marketing of natural gas. I don't know why this could not be a clause that is put into there. It would make a lot of sense I think for all parties involved. I think it would be helpful to them.

Mr. TIERNEY. When you made the comment earlier that this was about taxes and not supply, you were holding up your vials there. Could you expand on that, what you were referring to?

Mr. SANTA. Oh, sure. It is very important for the Federal Government to collect, I think, about 18 cents of tax on a gallon of kerosene from users of motor fuel.

Mr. TIERNEY. Is that a useful tax for the government to have?

Mr. SANTA. It is appropriate. It is the Federal Government planning for the highways. This is for highway use, by the way. Believe it or not, there are people in this world that cheat, that sometimes do not pay their taxes as they should. So therefore, to make it very clear, literally, figuratively, who is and is not paying the tax, they have—we dye the stuff that is off road.

So therefore, woe betide that unfortunate individual who finds this in his motor fuel tank when the Federal tax guy stops into the truck stop and does a sample at the tank. So that is what that is all about.

Please understand me, I am not criticizing the Treasury or IRS or anyone else, they have to figure out how to get their stuff. All I am saying is that this just adds another—it just divides the storage capacity again and again, because we cannot store this with this. It takes three drops of red to change 1,000 gallons to that color.

Mr. TIERNEY. Would you recommend some sort of a tax that blended over them so you didn't have to have different dye and different storage?

Mr. SANTA. I think that might be one good idea, Congressman. Another thing that we are advocating quite a bit, I mentioned that there is a difference in the sulfur content. This one in my right hand has 0.05 percent sulfur, this one has 0.2 percent sulfur. We prefer to use this one for heating oil. This is diesel fuel, this is heating oil. We prefer to use this one for heating oil with the low sulfur because we think it is better for our customers, better for the environment, it is a better product. Why not? Let's get together on that. Let us make a single fuel that has a single sulfur requirement. It might help. It would not hurt.

Then would we then get by the tax thing? I am not sure. I am not in that business, I am in this business. Sorry.

Mr. BURTON. The gentleman's time has expired. We are just about to wrap up with this panel. I want to thank you.

Mr. SHAYS. I would like to point out to Mr. Tierney that he is just a typical constituent in my district. Now you know why I am the way I am.

Mr. TIERNEY. Your constituents at least acknowledge that there is some need for some regulation some of the time.

Mr. SANTA. My terminal is right up the creek from Chris's house.

Mr. BURTON. Let me end the discussion with this panel. There were 231 refineries in 1982. Now it is down to 155, and now they have to diddle around with different types of gasoline, different components in the gasoline and oil.

It has to be a problem because of government regulation. There has not been a new oil refinery built in 25 years. That seems to me like it has to create a problem.

We talked about electricity rates in Montana going up 500 percent for industrial users, driving at least one industry out of business, temporarily, anyhow. We have 17 times in California, near San Jose, where there have been stage 2 alerts, and it has cost a lot of money to one company out there.

Government regulation and environmental concerns have, according to Mr. Pursell, taken a lot of the natural products that can be, according to you, Mr. Pursell, produced environmentally safely off the market. It seems to me that we ought to revisit those regulations that are taking things that can be environmentally produced—produced in an environmentally clean way back in the market so we can increase the supply, and because of the law of supply and demand, reduce the price.

Government regulation, Mr. Tierney is right, there needs to be some. We can't let somebody rip off the public and run prices up just because they want to make an extra dollar, so there needs to be some regulation. But most of us on this side of the aisle, at least, and many on the other side of the aisle believe we are over-

regulated when we are facing an energy crisis like we are facing this winter. And most people agree, we are going to have a tough winter, especially if it is very cold up North, in the Northeast, out in the Northwest, and that we need to revisit some of these regulations so we can get more production for the fuels that are going to be needed by the American consumer: oil, gas, electricity, and everything.

I want to thank you very much for being here. If you have any suggestions that you think we can look at that you have not talked to us about today, would you please put those in writing and get them to me and my chief of staff, and we will present those to the officials at the Energy Department and the EPA, Environmental Protection Agency, to see if maybe we cannot get some review of some of the things that are causing you heartburn and hurting the American public.

With that, thank you very much. We will relieve this panel.

We will welcome our next panel. If you can just give us about 5 minutes, we will be back with the next panel.

[Recess.]

Mr. BURTON. Back on the record. We will reconvene.

Our next panel consists of Mr. Bob Slaughter, who is the general counsel and director of public policy for the National Petrochemical and Refinery Association; Mr. Curt Hildebrand, vice president of project development for Calpine Corp. of Pleasanton, GA; Mr. Steve Simon, president of Worldwide Refining and Supply for ExxonMobil Corp. in Dallas, TX; and Mr. David Hawkins, director of air and energy program for the Natural Resources Defense Council.

Would you all please stand up and raise your right hands?

[Witnesses sworn.]

Mr. OSE. Mr. Chairman, I just want to make one correction to your introduction. It is very eloquent, but those of us from California like to claim California, Pleasanton, south of San Francisco, not in Georgia. Georgia is a great State, but we prefer California.

Mr. BURTON. It is California?

Mr. OSE. It is California.

Mr. BURTON. You don't like Georgia?

Mr. OSE. I love Georgia, but I love California more.

Mr. BURTON. It is a good thing you said that. You would be in big trouble.

I apologize to Mr. Hildebrand. You have a nice tan and glow, so I figured you probably came from one of those sunny places.

Mr. HILDEBRAND. I thought I might be getting transferred or something.

Mr. BURTON. I apologize. I will fire whoever put that on there.

We try to keep our opening statements to 5 minutes. If you go a little bit longer, that is fine. I appreciate very much all of you being here.

We will start with you, Mr. Simon.

STATEMENTS OF STEVE SIMON, PRESIDENT, WORLDWIDE REFINING AND SUPPLY, EXXONMOBILE CORP., DALLAS, TX; BOB SLAUGHTER, GENERAL COUNSEL AND DIRECTOR OF PUBLIC POLICY, NATIONAL PETROCHEMICAL AND REFINERY ASSOCIATION; CURT HILDEBRAND, VICE PRESIDENT, PROJECT DEVELOPMENT, CALPINE CORP., PLEASANTON, GA; DAVID HAWKINS, DIRECTOR, AIR AND ENERGY PROGRAM, NATURAL RESOURCES DEFENSE COUNCIL

Mr. SIMON. Chairman Burton, members of the committee, I am Steve Simon, president of ExxonMobile Refining and Supply Co. The divisions and affiliated companies of ExxonMobile Corp. operate or market their products in the United States and about 200 other countries.

In the interests of your time, I will summarize my remarks and ask that my written testimony be submitted for the record.

Since my area of expertise is in the refining and supply of petroleum products, I will focus on that segment of the business. But in addition, in response to your request, although not in my area of direct expertise, I will also provide some remarks on natural gas.

Due to antitrust and competitive concerns, I hope you will understand that I cannot discuss company specifics regarding inventory, supplies, and pricing.

ExxonMobile certainly understands the importance of heating oil to homeowners, business, and government. Subject to all the factors that impact supply and demand in the world oil market, we remain committed to continuing to meet all our contractual commitments to supply heating oil to our distributors.

Barring any unforeseen or extraordinary circumstances, we expect that heating oil supplies will be sufficient this year to meet our wholesale distributor needs if the market is allowed to work.

A lot has been reported recently regarding heating oil inventory levels. On average, however, 85 to 90 percent of heating oil supplies over a normal winter come directly from refineries. Only 10 to 15 percent of the seasonal demand is typically met by drawing down inventory.

Low inventory levels at this time are not necessarily predictive of inventories in December or January, when the winter heating season will peak. With the end of the summer driving season, ExxonMobile is currently increasing production of distillates, and, in fact, are now producing 10 to 15 percent more than we were at this same time last year. We have also taken steps this year to improve our ability to move heating oil from our Gulf Coast refineries to the Northeast.

Congress has taken a major step to try to avoid a repeat of last winter's temporary supply disruption by establishing and beginning to fill a Northeast heating oil reserve.

We have significant concerns about government intervention in the marketplace. A sudden, severe weather pattern was the primary cause of the situation last winter. A regional reserve would not necessarily help when unusual weather conditions prevent home heating oil from being moved into individual northeast markets.

We strongly encourage members of the committee and other Members of Congress to carefully consider what impacts establish-

ing a northeast heating oil reserve will have on industry's ability to react to all the market forces of supply and demand.

Like heating oil, natural gas prices are driven by the principles of supply and demand, as well. Rising demand for natural gas is being experienced across all demand segments of the market, particularly with regard to new electric power generation plants. This comes in the wake of the dramatic fall in commodity prices in the 1998–1999 timeframe, and the resulting lack of investment capital.

It takes time to recover from a significant decline in investment, but individual producers have reacted aggressively to bring more supply to the market.

ExxonMobile, for example, has a majority interest in two major projects that have started up this year. Sable Offshore in eastern Canada and Diana Hoover in deepwater Gulf of Mexico are bringing over 600 million cubic feet per day of additional supply into North America.

Recent fluctuations in natural gas prices are the market's way of balancing supply and demand. In all energy sectors, the market must be allowed to work.

In a broader sense, while we recognize regulations are necessary, they should attempt to strike the right balance between what at times can be competing goals: reliable affordable energy versus a cleaner environment. The National Petroleum Council said it best in their report entitled "U.S. Petroleum Refining: Assuring the Adequacy and Affordability of Cleaner Fuel."

The assessment is blunt. These changes will be very expensive. They are probably impossible to complete in the proposed timeframe. They will lead to worsened supply rigidity, and there is a real risk of increased price volatility and more serious local shortages.

Proceeding so quickly on so many fronts with so many special cases is a recipe for recurring supply and price crises. The Federal Government needs to employ sound science coupled with rigorous cost-benefit analysis, and proceed at a pace that allows investments to be made in an orderly fashion that does not further threaten the supply of fuels to U.S. consumers.

In conclusion, the energy industry needs a consistent set of rules and a level playing field in order to continue to provide quality products to consumers in a timely fashion and at competitive prices. Consumer interests are best served by industry and State and Federal Government working together and considering the full range of impacts on consumers when proposing regulatory requirements.

I will be happy to answer any questions the committee may have.
Mr. BURTON. Thank you, Mr. Simon.

[The prepared statement of Mr. Simon follows:]

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Statement

J. S. Simon
President
ExxonMobil Refining & Supply Company

before the
House Committee on Government Reform

September 20, 2000

Chairman Burton, members of the Committee, I am Steve Simon, President of ExxonMobil Refining & Supply Company. The divisions and affiliated companies of ExxonMobil operate or market products in the United States and about 200 other countries. Our principal business is energy, involving exploration, production, transportation and sale of petroleum products.

My area of expertise is in the refining and supply of gasoline, diesel fuel, heating oil and other similar products. I am pleased to have the opportunity to appear before the Committee to discuss the heating oil and natural gas situation and actions to ensure a continued reliable supply of petroleum products.

Due to antitrust and competitive concerns, I hope you will understand that I cannot discuss company-specific facts regarding inventory, supplies and pricing. What I can say is that historically, heating oil prices have been volatile with factors such as crude oil cost, weather, transportation, speculation by investors and short-term demand fluctuations all influencing price. Given the uncertainty surrounding the impact of OPEC actions, the crude oil markets have been extremely volatile, and heating oil prices have followed crude oil prices.

ExxonMobil understands the importance of heating oil to homeowners, business and government. We remain committed to continuing to meet all our contractual agreements to supply heating oil to our distributors, subject to all of the factors that impact supply and demand in the world oil market. Barring any unforeseen circumstances, we expect that heating oil supplies will be sufficient this year to meet our wholesale distributor needs if the market is allowed to work.

The United States heating oil demand is concentrated in the Northeast. According to the Energy Information Administration (EIA), heating oil accounts for about 8% of residential energy use nationwide, but about 73% is typically consumed in the Northeast. It is important to note that although most heating oil is consumed in the Northeast, generally it is refined elsewhere. On average, 85-90% of heating oil over a normal winter comes directly from refineries. About one-third comes from mid-Atlantic refineries with the remaining two-thirds coming primarily from U.S. Gulf Coast refineries and some imports. Only 10-15% of the seasonal demand is typically met by drawing down inventory.

In addition, the components that comprise heating oil are also used to manufacture automobile and truck diesel fuel as well as jet fuel. So industry production must also meet the demands of a range of customers such as airline, trucking, military, agriculture and other industries that use similar molecules. The market will efficiently rebalance what is produced if allowed to operate, and a flexible logistics system will ensure products are delivered in a timely fashion.

The heating oil market is highly competitive with a large number of participants. While ExxonMobil *manufactures* home heating oil, we do not sell it directly to consumers. We do sell heating oil in the wholesale market to distributors who then resell the product directly to homeowners. Some distributors maintain their own inventories and plan deliveries based on their customers' historical use patterns and the best available weather forecasts.

Industry and government data indicate that U.S. inventories of distillates, which include heating oil, are on the low side of the five-year range. Industry is now moving

from the peak gasoline season to distillate season and seasonal inventory build is under way to meet anticipated normal requirements. Low inventory levels at this time are not necessarily predictive of inventories in December or January, when the winter heating season will be at its peak. More importantly, as stated earlier, 85-90% of demand is met by production, not inventories. According to industry data reported by the American Petroleum Institute, during August refineries produced a record-high 115 million barrels of distillate, which is 8.4% higher than for August last year.

ExxonMobil is currently increasing production of distillates and in fact are now producing 10-15% more than we were at this time last year. We have also taken steps this year to improve our ability to move heating oil from our Gulf Coast refineries to the Northeast.

Compared to last year, industry distillate inventories in the Gulf Coast (PADD III) are at similar levels and near the high end of the five-year range. This reflects the higher distillate production in the Gulf Coast as those refineries move to supply product for the Northeast winter heating oil season.

To address inventory levels and prices, Congress has taken a major step to try to influence the market by establishing and beginning to fill a Northeast heating oil reserve. We have significant concerns about government intervention in the marketplace. According to media reports, distributors have voiced concern that their own inventories could be devalued not if, but when, the government makes a release from the reserve.

Additionally, the primary cause of last year's short-term heating oil supply problem was a sudden, severe weather pattern that froze rivers and made many roads nearly impassable. As a result, a regional reserve would not necessarily help when

unusual weather conditions prevent home heating oil from being moved into individual Northeast markets. We strongly encourage members of the Committee and other members of Congress to carefully consider what impacts establishing a trigger to release product from the Northeast heating oil reserve will have on industry's ability to react to all the market forces of supply and demand.

The natural gas supply/demand balance is driven by the same fundamental factors as heating oil. I would now like to address the natural gas situation.

ExxonMobil's U.S. market share of natural gas is about 5% with the top five major and integrated producers representing only 17% of the U.S. market demand. The producer market is highly diluted with independents accounting for 65% of domestic natural gas production.

Like heating oil, natural gas prices are driven by the principles of supply and demand. Natural gas is traded in an open, broad and transparent market which consists of a multi-hub system close to major markets and distribution systems.

Rising demand for natural gas is being experienced across all demand segments of the market. The EIA has increased its annual growth rate for natural gas to 4.3%. This robust growth is being led by the growth of natural gas as the primary fuel for new power plant generation.

Weather can also significantly impact demand for natural gas. The move towards gas-fired electricity generation has and will continue to create year-round demand for natural gas. Utilities and energy service providers will need to meet increasing electricity demand for heating in the winter and for air conditioning in the summer.

Drilling for natural gas declined in the wake of the dramatic fall in commodity prices in 1998–1999 and the resulting lack of investment capital. It takes time to recover from a significant decline in investment, but individual producers have reacted aggressively to bring more supply to the market.

Three out of four U.S. drilling rigs are currently busy drilling for natural gas. Since last October, the industry has had an average of 600 rigs working, and gas well completions have increased 30% to more than 1,000 per month. According to industry data reported by Baker Hughes, as of September 2000 there are 816 rigs drilling for gas, up from 371 April of 1999.

ExxonMobil has majority interest in two major projects that have started up this year. Sable Offshore in Eastern Canada and Diana Hoover in deepwater Gulf of Mexico are bringing over 500 million cubic feet (mcf) of additional supply into North America.

The existing domestic natural gas resource base is mature. Although it is adequate in the near-term, significant challenges will have to be met to meet future market demand. A Nation Petroleum Council (NPC) study projects that producers will have to invest huge sums of capital in the upstream from 1999 to 2015 to meet expected demand growth for natural gas.

In all the energy sectors, the market must be allowed to work. Government intervention only serves to complicate matters by artificially manipulating the market. For example, refineries have been operating at over 95% of capacity to meet the country's energy needs. In this sector, no recent significant additional capacity has been added due to a myriad of environmental regulations, permitting issues and poor margins.

In a broader sense, while we recognize regulations are necessary, they should attempt to strike the right balance between what at times can be competing goals – reliable, affordable energy versus a cleaner environment. A study prepared by the National Petroleum Council said it best in their report “*U.S. Petroleum Refining – Assuring the Adequacy and Affordability of Cleaner Fuel.*” At the request of Energy Secretary Richardson, the NPC assessed the impact of government policies and actions on refinery operations and petroleum product supply in the 2005 time frame. The NPC assessment is blunt. These changes will be very expensive, they are probably impossible to complete in the proposed time frame, they will lead to worsened supply rigidity, and there is a real risk of increased price volatility and more serious local shortages.

In other words, proceeding so quickly on so many fronts with so many special cases is a recipe for recurring supply and price crises.

Improving the environment is an important goal. So are basic reliability and availability of fuel supplies. And consumer costs are important, too. All these objectives can be addressed, but they must be considered together. The federal government needs to employ sound science coupled with rigorous cost-benefit analysis and proceed at a pace that allows investments to be made in an orderly fashion that does not further threaten the supply of fuels to U.S. consumers. The NPC study stands as an additional warning that in a complex marketplace public policies must be balanced, practical and avoid the risks of too zealous a pursuit of single objectives.

In conclusion, the energy industry needs a consistent set of rules and a level playing field in order to continue to provide quality products to consumers in a timely fashion and at competitive prices. Consumer interests are best served by industry and

state and federal government working together in considering the full range of impacts on consumers when proposing regulatory requirements.

I will be happy to answer any questions the Committee may have.

Mr. BURTON. Mr. Slaughter.

Mr. SLAUGHTER. Thank you, Mr. Chairman. My name is Bob Slaughter. I am here on behalf of the National Petrochemical and Refiners Association. We represent virtually all U.S. refiners, as well as petrochemical administration companies that have processes similar to refineries.

While the NPRA is working extremely hard right now, all of our membership is working hard to make petroleum products readily available at affordable prices to consumers—as a matter of fact, the refining industry, according to the latest API statistics, is still working at 95 percent of capacity, and has been varying between 95 and 96 percent of capacity, which is essentially full out—for some time, in order to produce as much product as possible, first for the gasoline season, but now increasingly for the home heating oil season.

We do believe that given that situation, supplies will be tight this winter. It looks as if they will be tight across several different types of energy, as has been discussed here this morning. But we do believe that given moderate weather, that we will get through all right.

We know, of course, from last winter's experience that the combination of a very sudden and sharp cold spell caused some particularly logistical problems, which created some difficulties for a period of time. But we want you to know that the industry, all our refiners are working full out to try to make products that consumers will need during this period.

Over the long-term, though, we have to say that we don't want to be alarmist, but we think that the midwestern experience this summer and the intervene experience last winter could be omens for the future. Today's refineries have little excess capacity and the number of few fuel types that must be delivered to different locations increases the potential for temporary supply disruptions and increased volatility.

The overall U.S. refinery utilization rate is almost 95 percent, very close to the operational maximum, but there is no longer a surplus in U.S. refining capacity overall. As the chairman has pointed out several times today, no new refineries have been built in roughly the last 20 years. Most of the refineries were built more than 25 years ago. The number of U.S. refineries has been decreasing.

Refiners have tried to meet demand, continue to meet demand by adding capacity at existing sites, but EPA is taking steps to make that increasingly difficult to do, and, in fact, is retroactively questioning the actions that were taken to meet some of this capacity in the past.

One problem, refining is far from the most profitable aspect of the energy business. Generally, over the last 10 years the average return on investment in refining is 5 percent, which is not much better than you can do in a passbook savings account.

More than \$7 billion has been spent on the last decade alone to comply with environmental regulations, and a National Petroleum Council study done in the 1990's indicated that the environmental expenditures that the industry was facing at that time essentially

exceeded the book value of the entire industry, so they are significant.

This is not going to stop. There are a host of new fuel requirements that we face in the next 5 to 7 years. We have a chart here that we call our regulatory blizzard chart. It shows basically all the different regulatory initiatives that the industry faces over the next 10 years.

The blizzard actually is becoming an avalanche, and some of our people are saying that it may end up being a perfect storm, because we are looking at at least three major initiatives that we know we are going to face: one to reduce gasoline sulfur, one to reduce diesel sulfur, and another very probable initiative that will do something to account for reduction or elimination of MTBEs in gasoline.

The total expenditures of all three programs will approach \$20 billion across the industry, and, incredibly, they are all having to be done in the same timeframe. So you can see that the situation that we have been dealing with over the last 10 to 15 years is only going to be continued and in effect, magnified over the next 10.

We have another chart we want to point out to you. One of our member companies, CITGO, prepared the second chart. It shows you the different types of summer gasoline that company has to produce right now. They have to produce nine types of gasoline to address varying State and Federal programs. That translates into 27 different grades of gasoline that have to be sold in isolated fuel islands.

We know that having such islands is a problem because if additional supplies are available nearby but cannot be sent where they are most needed due to differing fuel specifications, we have supply problems with resulting price hikes. We saw some of that happen in the Midwest this summer, and it is the problem that results from the so-called balkanization of the fuel market.

To really sum up a lot of our message today, we just believe there is a disturbing lack of coordination between our energy and environmental policy objectives. The pursuit of a number of increasingly stringent environmental programs in a piecemeal and uncoordinated fashion has stretched the refining and distribution system to its limit, resulting in greater potential for tighter supplies and increased market volatility.

Just to specifically mention some things that are going on now—and this is not improving, it is getting worse—EPA is moving forward with a regulation to reduce sulfur in diesel fuel, which is extremely expensive.

We do not believe, as a matter of fact, that the level they have chosen for us is technologically feasible. We have advocated a 90 percent reduction which we think the industry can do without any adverse impact on supply. They are insisting on a 97 percent reduction, and studies indicate that results in a 12 percent shortfall in diesel supply when that is implemented.

Obviously, there are significant implications from a shortfall in highway diesel supply, but that is exactly where that EPA regulation takes you.

Another part of it basically regulates emissions from heavy trucks. We were amazed to read the comments of Cummins Engines, the largest manufacturer of engines. Cummins basically says

EPA—it has no idea how it will technically be able to do what the EPA is asking of it on the engine side.

They also believe EPA has underestimated the cost of the program for engines by a factor of six, and that people will simply not be able to afford those engines if they find that they are able to do it. Therefore, all of the benefits that are alleged for that rule-making are illusory.

The agriculture community has come into EPA with concerns about that rule, and the fuel industry has as well, but EPA has told us they will finalize that rule by the end of the year, and they will not be changing the timeframe or the number. So obviously, we are not learning from some of the problems in the past.

We also have some difficulties on the Hill. We are going to have to do something on that MTBE issue. Unfortunately, there are some people who want to combine that issue with an environmental agenda which will make gasoline more expensive, and at the same time, another agenda, which would actually mandate fuel components for us.

That is something that would make gasoline more expensive and would have an impact on supply at just the time we think that would be worse for Federal policies and for consumers, so we are working that issue hard. We are trying to keep away from mandates. We would like to go to sensible performance standards.

It is not that we are not absolutely committed to making environmental progress. Emissions from refineries have been reduced 74 percent, and more has to be done, but we do think there needs to be coordination and we need to have more reasonable environmental policies.

Thank you, Mr. Chairman.

Mr. BURTON. Were all the comments you made in your opening statement—do we have those?

Mr. SIMON. Yes, sir.

[The prepared statement of Mr. Slaughter follows:]

**STATEMENT OF
BOB SLAUGHTER
GENERAL COUNSEL
NATIONAL PETROLEUM & REFINERS ASSOCIATION**

**BEFORE THE
HOUSE GOVERNMENT REFORM COMMITTEE**

**CONCERNING
UNITED STATES ENERGY SUPPLIES**

**SEPTEMBER 20, 2000
WASHINGTON, DC**

Introduction

The National Petrochemical & Refiners Association (NPRA) represents virtually all of the refining industry, including large, independent and small refiners as well as petrochemical producers. Our members manufacture petrochemicals and the refined petroleum products needed to produce and transport America's goods and services. We understand your concern about the potential for price and supply problems this winter and in the future. And, we appreciate this opportunity to provide our perspective on energy markets and the impact of government policies on those markets. Thus, we will provide a snapshot of the current situation, but also discuss how we reached this point and what may lie ahead as a result of government policies currently under consideration.

Further, we will discuss the broader implications of the seemingly divergent goals of current US energy and environmental policy. In short, there is a disturbing lack of coordination between our energy and environmental policy objectives. The pursuit of a number of increasingly stringent environmental programs in a "piecemeal" and uncoordinated fashion has stretched the US fuel refining and distribution system to its limit -- resulting in greater potential for tighter supplies and increased market volatility.

While we do not wish to sound "alarmist," the experience in the Midwest this summer (and with heating oil supplies to the Northeast last winter) may be an omen for the future. As the Energy Information Administration (EIA) stated recently: "Today, the U.S. refinery system has little excess capacity, and the growth in the number of distinct gasoline types that must be delivered to different locations increases the potential for temporary supply disruptions and increased volatility."

And, EIA has specifically expressed concerns about the supply and cost of heating oil and natural gas for next winter. However, the good news is that there is still time for prudent action to build inventories and enhance supplies. And, there is time for reasoned consideration of both environmental and energy policies to ensure that future actions do not unnecessarily constrain energy supplies and threaten economic growth.

NPRA believes it is possible to enjoy reliable and affordable fuel supplies, while preserving, and improving upon, our environmental progress. However, this can only be achieved if energy and environmental policymaking is integrated and if the costs and benefits of new regulatory or legislative requirements are carefully weighed in the context of the impact on energy supplies.

This is particularly important now, given the host of new fuel requirements that could be imposed in the next 5-7 years -- both by EPA and/or Congressional initiative. These include EPA's proposed far-reaching reductions in on-road diesel sulfur and legislative directives, such as S. 2962 (the Smith bill) which

would phase out the use of certain oxygenates like MTBE, while mandating a tripling in the use of ethanol, and further constraining the manufacture of gasoline by capping aromatics and limiting other blendstocks that enhance fuel performance. At the same time, reinterpretations of existing policies, such as EPA's enforcement policy, may "change the rules mid-game," resulting in further regulation through enforcement rather than public rulemaking.

In short, as stated in our July testimony before the Senate Energy and Natural Resources Committee, the regulatory "blizzard" (see attachment) that NPRA has highlighted is in danger of creating "avalanche" conditions. And, to mix our metaphors a bit, some might even say that we are unknowingly headed for "The Perfect Storm."

Absent a comprehensive and integrated approach, energy policy will be just the de facto result of environmental policy. American consumers and our economy will suffer the consequences in terms of supply uncertainties, higher costs and lower economic growth.

The Current Outlook: Potential Exists for Continued Volatility in Energy Markets

The Energy Information Administration's (EIA) Short-Term Energy Outlook issued this month foresees continued tightness in heating oil, natural gas and electricity markets. Thus, there is potential for market volatility due to weather and operational difficulties in producing and/or distributing energy supplies. Barring unforeseen events, we should be able to make it through this winter without major disruptions. However, we must remain vigilant and do as much advance planning as possible, since in today's energy markets, small changes in supply or demand can have a significant impact on energy costs. Some actions have already been identified -- for example, some refineries have deferred turnarounds scheduled for this fall and Colonial Pipeline has offered financial incentives to shippers committing to ship large volumes from the Gulf Coast to New York harbor in the fall and early winter.

With regard to distillate (heating oil and diesel fuel), inventories remain lower than average despite higher refinery output. In part, this may be due to a later than usual seasonal switch from maximizing gasoline production to maximizing distillate output (this may be part of the legacy of the gasoline supply challenges earlier this summer). According to American Petroleum Institute (API) statistics, refinery distillate output set a record for the month of August and was 8.4% higher than a year ago. At the same time, the overall US refinery utilization rate was almost 96% -- in other words, refineries were running at, or very near, their operational maximum.

EIA's outlook states that:

“Now that the summer is nearly over, if the currently depressed level of distillate stocks continues into the heating season, the result would be a high level of price volatility for the distillate fuels this fall and winter. Last February, a period of very cold weather in the Northeast, in combination with notably low stocks of distillate fuel, led to heating oil and diesel fuel prices that averaged more than \$2.00 per gallon in New England and other areas in the Northeast.”

EIA expects continued buildup of inventories but cautions that “... the mid-winter levels are not likely to be sufficient to provide much of a cushion if severe weather conditions occur in the Northeast. Unless the winter in the Northeast is unusually mild and/or world oil prices collapse, substantial price strength gains for heating oil and diesel fuel are highly likely.”

Similarly, with regard to natural gas, prices will be dependent on weather patterns and could be substantially higher. Here, too, inventories (i.e., working gas storage levels) are lower – 18% below year ago levels according to EIA. In part, EIA believes this is weather-related since unusually hot summer weather in Texas and California (states that consume large amounts of gas-generated electricity) have led to sub-par storage rates. And, demand has increased due to economic growth over the last 8 years and the increasing use of gas in power generation. EIA’s outlook indicates that natural gas prices now are double this time last year and they project residential prices to be about 27% higher than last winter (October-March).

Electricity rates have also proved volatile this year due to higher fuel generation costs and generation capacity constraints. The latter has been affected in many areas by uncertainty about the scope and pace of electric restructuring following years of regulation. As recent experience in San Diego has demonstrated, electric markets can be quite volatile. And, a “wired” economy still relies on fuel via our electric outlets. However, prices can and do move in both directions and electricity costs were lower than normal in areas that had cooler summers such as the Northeast. Again, much depends on variables outside our control such as the weather.

In summary, we believe that fundamental changes in energy markets have increased the potential for supply constraints and price volatility. Due to these changes, it is even more important that any government policies affecting energy supplies be fully evaluated and care taken to avoid a rush to judgment that will later be regretted. Neither the last few weeks of a Congressional session nor the last few months of a Presidential term are optimal times for impromptu policymaking.

While potential for volatility exists in all energy sectors this winter, barring unforeseen circumstances, we should be able to handle the challenges we face. It is the challenges for the future that are more daunting. Before highlighting

several of those concerns, we would like to provide some context on changes in energy markets that have led us to the current situation of greater supply and price volatility.

Fundamental Shifts in Energy Markets Have Occurred

Of course, we did not arrive at today's situation overnight. The forces that currently constrain energy supplies have been building over the last decade or two. And, many of these constraints arise from government programs which may have had laudable goals, but which have had consequences that were either ignored or unforeseen.

One fundamental change is that there no longer is a surplus in US refining capacity. No new refineries have been built since the early 1980s – in part because of the economics of the industry and in part because of constraints on construction. Since 1983, the number of US refineries has decreased from 231 refineries to 155 in 2000. Fortunately, despite the decline in the number of refineries, US refining capacity has not changed much (16.46 million barrels per day to 16.3) as refiners have tended to expand at existing sites, combining, for example, refinery equipment modifications for environmental programs with debottlenecking. Although this has helped stabilize supplies, it is not clear such a path can be followed in the future given EPA's propensity to reinterpret the rules pertaining to permitting and new source review.

Another fundamental concern is the impact of prolonged periods of low rates of return in the refining industry, especially when coupled with refinery ownership changes shifting some refineries from larger integrated companies to independent refiners. Even without considering this aspect, in a world where rates of return in the last decade for refineries averaged about 5% rivaling a passbook savings account, every refinery must stand alone to earn investment capital.

Within this type of economic climate, each refinery must be as efficient as possible and must tightly control costs. Some costs are unavoidable -- such as the environmental requirements that the National Petroleum Council (NPC) estimated have exceeded the book value of the refinery assets themselves. More than \$7 billion has been spent in the last decade to comply with environmental regulations. However, other costs can be controlled, hence the increased pressure to maintain adequate, but not excess, inventories. Thus, there has been a pronounced shift to lower inventories in recent years.

Another major change is the emergence of significant limitations on the fuel distribution system due to the large number of different environmental fuels that must be handled. Attached to this statement is a chart prepared by one of our member companies (Citgo) detailing the numerous types of summer gasoline that they produce. They currently must provide nine categories of gasoline to

address varying state and federal programs. With three grades of gasoline per category that translates into 27 grades of gasoline. The ability to ship all these segregations via pipeline and the availability of separate storage tanks for each grade is becoming increasingly problematic.

And, this is before future requirements are factored in. Given EPA's disinclination to limit individual states' propensities to create their own fuel programs, additional constraints may be encountered. PIRINC's analysis of gasoline supply problems ("Gasoline 101: A Politically Explosive Topic") attributes the greater frequency of market volatility in recent times (e.g., California's price spikes in 1999 and this summer's price increases in the Midwest), at least in part, to states' tendencies to create fuel "islands." And, the Congressional Research Service made similar observations in their study of the Midwest gasoline market earlier this summer. Such isolation can have a marked effect if additional supplies that may be available nearby cannot be sent where they are most needed due to differing fuel specifications. Unfortunately, this trend could worsen if approaches such as that embodied in S 2962 are adopted which would further encourage states to "go their own way."

In addition, the pace and scope of regulatory change is intensifying. EPA is setting fuel and vehicle emission requirements that simply may not be feasible or may only be achieved at the risk of much tighter energy supplies and greater price volatility. A prime example is the pending proposed rule for heavy duty diesel vehicles and on-road diesel fuel. Despite the serious concerns expressed by many industries and consumers of diesel fuel (see attachment), EPA seems determined to rush to finalize this rule despite the fact that they are moving much more quickly than the leadtime requirements mandated in the Clean Air Act.

New fuel and vehicle emission requirements are pushing the feasibility envelope. They also do not meet the test of cost-effectiveness. Further, the volume of fuel affected has grown substantially. For example, EPA's reformulated gasoline program only affects the fuel sold in the worst ozone nonattainment areas (about 25% of US gasoline), however the new requirements to substantially reduce sulfur in gasoline will apply to all gasoline nationwide, as is the case for the proposed on-road diesel fuel sulfur reduction.

And, the timing of these fuel programs is significant. The stringent reductions in gasoline sulfur, the substantial reductions in diesel sulfur and the phasing out of MTBE all overlap. This raises serious concerns about the availability and cost of engineering and construction services, not to mention whether all the necessary permits could be obtained in order to meet these deadlines. The recent NPC report, "U.S. Petroleum Refining: Assuring the Adequacy and Affordability of Cleaner Fuels," strongly recommended that the effective date of the proposed diesel program be adjusted so that it does not overlap with the implementation of the gasoline sulfur program. The NPC study noted that: "The timing and size of the necessary refinery and distribution investments to reduce sulfur in gasoline

and diesel, eliminate MTBE, and make other product specification changes such as reducing toxic emissions from vehicles are **unprecedented** in the petroleum industry." [Emphasis added] And, the NPC cautioned that "...there will be an increased likelihood of localized supply disturbances as product quality specifications are tightened, particularly during the initial implementation of new specifications."

The scope of the refinery modifications needed to conform with these requirements raises another concern from a supply perspective, namely that more and more pieces of refinery equipment become essential to producing complying product. Thus, any operational problems that occur could affect larger volumes of the fuel produced at a refinery and the supply impact will be magnified in downstream fuel markets.

Another significant change is a steady growth in US product imports to meet demand. However, programs such as EPA's gasoline and diesel requirements would set different and more stringent standards, thus potentially cutting the US off from needed supplies in the event of a supply/demand imbalance.

Additional Supply Concerns Could Surface in the Future

Several environmental programs currently being considered, or being reinterpreted by EPA, present substantial risk for future energy supply challenges. The three that we would like to highlight today are EPA's proposed rule for ultra low sulfur diesel fuel; S. 2962 (introduced by Senator Smith, R-NH) as reported out of the Senate Environment and Public Works Committee; and EPA's reinterpretation of their new source review permitting guidance.

With regard to diesel fuel, industry has committed to substantially reduce the sulfur level of on-road diesel (a 90% reduction from today's level). However, EPA has a different plan and wants an even larger reduction in sulfur content as well as harsh new emission controls on heavy duty vehicles. Engine manufacturers, such as Cummins, have pointed out that the technology to achieve those emission reductions is not yet available and may well prove infeasible. Refiners have questioned the cost-effectiveness of a 97% reduction in diesel sulfur levels, given the substantial impact it will have on fuel supplies.

A recent study by Charles River Associates, commissioned by API, has determined that the EPA proposal, when implemented, will result in a national average supply shortfall of 12% versus current supplies. However, the regional effects will vary -- with the Rocky Mountain region facing a potential shortage of thirty seven percent! And, domestic diesel supplies will not be able to be supplemented by imports since the US will have a different fuel specification than Canada and Europe.

Moreover, the agricultural community, food marketers, trucking industry and even the Department of Defense have raised concerns about the availability and cost of diesel fuel. Furthermore, a number of serious questions have been raised about EPA's cost estimates. Cummins has indicated that their estimate of the potential engine costs is at least six times more than EPA's and that operating costs also will be higher. Indeed, there will be about a 5% fuel economy loss, thus increasing demand for diesel at a time that supplies will be reduced. Given the market volatility that has already been evidenced with much smaller shortfalls and the fundamental changes that have occurred in energy markets, proceeding with EPA's proposal without further analysis would seem to be a recipe for disaster.

We believe that the nation cannot afford to implement a program that will create diesel shortages. NPRA urges this committee to scrutinize EPA's proposal and require a third party such as the National Academy of Sciences to study this proposal's impact on energy supplies, agricultural uses, transportation and engine manufacturers **before** the rule is rushed to finalization. It is critical to remember that we have the time to do this right. Even if reductions in diesel fuel sulfur content were required in 2006 as proposed, the four years leadtime required by refiners means that we have another year to a year and a half to ensure that reductions will be made in a cost-effective manner without jeopardizing fuel supplies.

Another area of grave concern is the recent Congressional action in the Senate Environment and Public Works Committee to phase out MTBE use, but in combination with a substantial new mandate for ethanol and additional constraints on gasoline blending through further controls on toxics and an aromatic cap. This bill, S. 2962, would adversely affect gasoline supplies and their cost, and even further strain an already limited fuel distribution system. The bill would allow any area to opt into the more costly federal reformulated gasoline (in contrast to the Clean Air Act Amendments of 1990 that required that fuel only in the 9 worst ozone nonattainment areas). Additionally, states that are concerned about the higher evaporative emissions associated with ethanol use would have the option to rescind the volatility waiver on ethanol fuels used to meet the national ethanol mandate. Thus, fuel suppliers could encounter a scenario where one state keeps the waiver while an adjacent state rescinds it – effectively balkanizing the fuel distribution system. The coup de grace is that the bill would require a mandatory tripling of ethanol use by 2010. Refiners already use substantial volumes of ethanol and its use will grow more in the future. However, mandates usually stifle competition and tend to lead to less, not more, competitive markets.

Given the significant volatility witnessed this year in Midwest gasoline markets (markets incidentally that already use ethanol), it is not clear why such a policy should be pursued. Recent events in Europe have demonstrated that even consumers inured to high fuel costs can reach their limit, and we all know

American consumers have never been shy about voicing their discontent with comparatively small increases in fuel costs. We urge this committee to stand firm on the crucial principle that sound energy policy can only be the result of deliberative analysis rather than simply being the “fallout” from incremental environmental decisionmaking.

This type of sound analysis and procedure is totally lacking from the third area that we highlight today, what we refer to as “regulation by enforcement.” Through EPA’s reinterpretation of its new source review guidance, the rules have been changed after the game has begun. And, make no mistake, this is no game but instead relates to the very serious issue of energy security and the future economic growth that can be attained. In short, it is an egregious abuse of regulatory power.

EPA has reinterpreted its rules covering modifications to existing facilities, in this case refineries, after those modifications have been completed and after a prolonged period. The effect will be to slow down future modifications at a time when the onslaught of regulatory requirements is accelerating and when energy markets will be ever more tightly constrained. The resultant inability to expand capacity at existing facilities will further limit fuel supplies as new refineries have not been built and seem unlikely to be built in the future. In addition, EPA has similarly challenged other energy producers, i.e., electric utilities, and pursued them for alleged noncompliance. In short, EPA is seeking to fine those who acted in good faith but who failed to comprehend the incomprehensible – EPA’s reinterpretation after the fact.

Further, refiners will spend significant sums to simply meet EPA’s information requests – funds that could be invested in the nation’s energy future instead of in document requests. Our members make every effort to comply with highly complex and, often onerous regulatory requirements. They remain committed to environmental progress and full legal compliance. However, it is never fair to change the rules mid-game and impose retroactive penalties. We urge this committee to examine this highly questionable and abusive practice of “regulation by enforcement.”

Summary

NPRA appreciates the interest of this Committee, and we want to work with you to find solutions to these problems. We believe that it is critically important that policymakers begin a review of our nation’s energy policy and provide a realistic energy policy for the U.S. domestic refining industry and other stakeholders. We must recognize the fact that the refining industry and our nation’s entire supply infrastructure is operating near its limit and will continue to do so for the foreseeable future. Little flexibility remains to respond to disruptions. Unfortunately, some disruptions may be unavoidable and may occur despite our best efforts to prevent them.

The refining industry has a strong commitment to improving the nation's environment, but we caution that environmental goals must be set in the context of our overall energy goals if we are to maintain our energy security. We believe, for example, that sulfur levels must be reduced in both gasoline and diesel. Refiners have offered reasonable and cost-effective programs to make these reductions. However, they have been totally ignored by EPA, despite our cautions about potentially severe product supply consequences. The pending EPA diesel sulfur proposal is a blueprint for reduced supplies of highway diesel and should not be made final without extensive revisions. Unfortunately, EPA seems determined to go forward with this radical and extreme proposal this year, and has ignored the concerns of the industry and numerous other stakeholders about its impact on supply. This indicates to us that we can expect "business as usual" with predictably adverse future impacts unless Congress or the courts intervene to balance environmental and energy supply concerns.

Stakeholders Express Serious Concerns about EPA's Proposed Diesel/Heavy Duty Engine Rule
(Excerpts from EPA docket filings)

Overview

"USDA believes more information and analysis is needed to identify the effects of this proposed rule on farm production and rural communities... this rule did not recognize the unique situation of agriculture and therefore may have overlooked some of the problems that ultra-low sulfur diesel fuel could create for rural areas." (US Department of Agriculture)

"Cummins has been in this business for 80 years and we do not know if these standards can be met and what the total cost is. How possibly can EPA?" ...Normally, Cummins prefers more leadtime to less. But in this case, the additional certainty and soundness of provisions written with the benefit of the additional studies is strongly preferred to this longer leadtime." (Cummins)

"Small businesses need reliable access to affordable fuel supply and vehicles. It's unreasonable for EPA to require the use of an unproven technology that will raise the cost of trucks and transportation, a vital component of many small businesses." (National Federation of Independent Business)

"More specifically, APTA suggests that EPA conduct more analysis of the science and technology that would support the achievement of the emission standards proposed in its rule. In effect, the EPA has time to investigate the scientific and technological implications further, and need not now mandate unproven technology; indeed, the rule could be finalized in 2002, which would still allow a new standard to go into effect in 2007." (American Public Transportation Association -- APTA)

"The Proposed Rule poses risks to the American economy in general and the trucking industry in particular through its technology-forcing mandates and its timetables for transition... these provisions could prove unduly burdensome and potentially wreak havoc on much of the trucking industry." (American Trucking Association)

"We remain deeply concerned that EPA's proposal for a 15 parts per million (ppm) cap on diesel sulfur content effective in April 2006 will sharply reduce available fuel supplies, leading to higher prices and increased market volatility that could have devastating consequences (making recent price spikes seem minor in comparison)." (National Petrochemical and Refiners Association - NPRA)

Supply Availability/Fuel Costs

"...the shortfall in diesel output is projected at 320 MBD, more than 12% of forecast 2007 domestic diesel supply. This loss in production creates a likelihood of domestic supply shortages and price instability. Since the losses in capacity differ across regions, there could be severe regional price spikes in the event of unexpected surges in demand, refinery outages, or pipeline constraints... Depending on the extent, if any, of USLD [Ultra Low Sulfur Diesel] import availability, diesel prices could rise by between 15 and over 50 cents per gallon." (Charles River Associates Study commissioned by the American Petroleum Institute)

"EPA should provide more information to demonstrate that fuel supplies to farmers and rural areas will not be interrupted as the industry converts to ultra-low sulfur diesel fuel. The

expected increase in fuel prices needs to be estimated to determine the effects of this rule on agriculture." (US Department of Agriculture)

"Tight supply availability (and resultant price spikes) is the most troublesome and vulnerable aspect of this rule. If there are political and economic lessons learned about the fuel disruptions concerning home heating oil last winter and reformulated gasoline (RFG) this summer, there is little appreciation for them displayed in this rule... This is a supply issue that could contribute to on-road diesel shortages and price spikes in ways more severe than RFG because one does not know if it is lost to the off-road until the last moment... It could become a surprise shortfall... Fuel availability shortages would affect agriculture, trucking, busing, airlines, the military and even electricity generation. If there are diesel shortages in the winter, expect to add the heating problems of homes, schools, hospitals and churches." (Cenex Harvest States — farm cooperative)

"There is significant risk of inadequate diesel supplies if EPA's proposal for 15 ppm maximum sulfur on-highway diesel beginning April 1, 2006 is implemented." (National Petroleum Council)

"Overall, NPRA expects diesel fuel supply capability could be reduced by 320-620 thousand barrels per day (MB/D) — or as much as 10-20% of projected diesel demand in 2006 as a response to EPA's proposed rule." (NPRA)

"If promulgated as proposed, the EPA initiative will increase food distribution and fuel transportation costs significantly, which may well result in higher food prices... Interruptions in fuel supply will cause substantial disruption to the food distribution industry, which depends largely on trucks to transport perishable food products, such as seafood, agricultural commodities, dairy products and fresh beef..." (Food Marketing Institute)

Technical Feasibility

"... EPA has failed fully to analyze and consider the technological feasibility of the proposed standards, including the multitude of supplemental test procedures and emission limits, the extreme ambient conditions under which engines must be compliant, and other aspects of EPA's proposal. EPA has not provided an adequate analysis of technological feasibility and the cost-effectiveness of its proposal... The proposed NOx standard is as much a product of wishful thinking as it is of sound technical feasibility analysis... The existing test measurement methods are seriously flawed, resulting in unacceptable levels of variability and making the proposed standards infeasible." (Engine Manufacturers Association — EMA)

"... but reaching the proposed standards with advanced aftertreatment technology and the 15 ppm sulfur diesel fuel EPA has proposed will be extremely difficult and is by no means a certainty... EPA has failed to provide any analysis of the technological feasibility of the proposed standards." (EMA)

"The after-treatment technologies and controls that would be necessary to achieve NOx emissions standards set by the Proposed Rule do not exist either outside of the laboratory or for all sizes of engines and their effectiveness has never been tested in the field... Indeed, even if the emissions reductions are technologically feasible, the instruments needed to measure such low levels of certain emissions do not yet exist and may not be developed in time for the relevant deadlines under rule." (American Trucking Association)

"As if EPA's failure to provide adequate time to comment on the complex provisions were not enough, EPA has compounded the problem by completely failing to provide any data or information or to make any showing that their proposed emission standards are feasible in light of the now-finalized supplemental requirements." (Detroit Diesel Corporation)

"Since there is no known technology that has demonstrated the capability of reducing NOx emissions to the level of the proposed 0.20 g/hp-hr standard, the proposed standard must be considered infeasible... a great many challenges would need to be overcome in applying any successful laboratory technology to real world vehicles that must operate in a wide variety of applications and conditions, and which must be durable and retain their emission control performance over a full useful life period of up to 435,000 miles." (Detroit Diesel Corporation)

"Rather, with regard to the feasibility of the candidate NOx reduction technologies, the proposed 2007 NOx standard is based less on sound analysis of technical feasibility and more on faith." (Cummins)

"An abrupt and widespread adoption of a new diesel fuel that has never been tested on farm machinery is worrisome to the agriculture community." (US Department of Agriculture)

"EPA's discussions do not reveal whether changes in engine, fuel or after treatment technologies in off-road engines have been studied. In fact, EPA does not address agricultural and other off-road engine performance and wear impacts from either 15 ppm or 50 ppm diesel. Special attention to buses has been repeatedly given but none to agricultural machinery. This is disappointing." (Cenex Harvest States)

Environmental Impact

"Finally, the NPRM simply cannot realize its projected environmental benefits. Even if manufacturers could produce products that nominally meet the proposed standards, owners of engines will opt to rebuild their existing equipment rather than pay the excessive costs for these new engines, and the benefits projected by EPA will not be realized." (Cummins)

EPA Cost Estimates

"EPA's projected \$30 million [estimated cost per refinery] is hard to accept given that our refinery in Laurel, Montana had costs of over \$83 million to convert to the 500 ppm standard in 1993." (Cenex Harvest States)

"...Cummins estimate for acquiring a heavy-duty diesel engine is up to six times that of the EPA estimate. And we estimate that the lifetime cost of operation of a heavy heavy-duty engine will be three to six times greater than EPA's estimates... Furthermore, the difference in fuel economy alone, without taking into consideration increased acquisition costs, will incent a truck owner to continue to operate an existing higher emitting, better fuel economy truck rather than buying new." (Cummins)

"The proposed standards are also not cost effective, and EPA has substantially underestimated the cost to achieve these standards (if at all possible) and the resultant cost of operation to the consumer of these engines. The engines will have much lower fuel economy, much higher product cost, will weigh more, and will be much less reliable and durable. EPA's

attempt at showing the proposed regulations are cost effective is totally arbitrary and is not based in reality." (Cummins)

Procedural Concerns

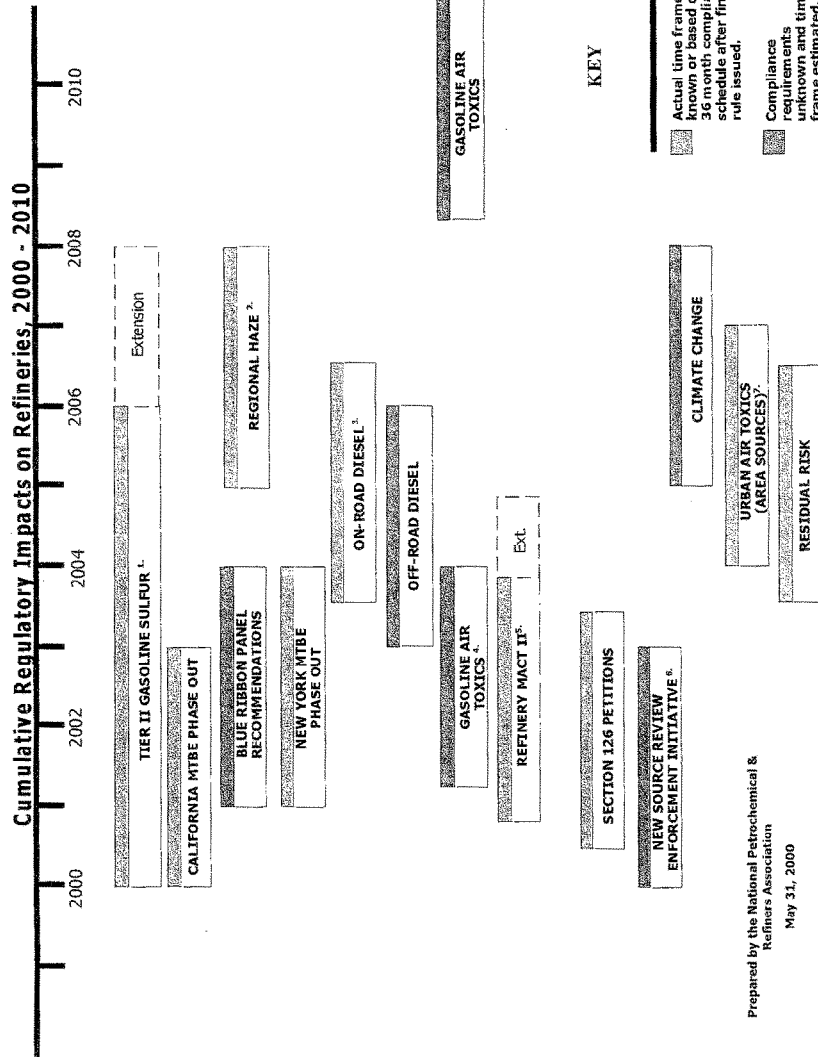
"Moreover, contrary to the mandates of the CAA [Clean Air Act], EPA has failed to provide any analysis of the technological feasibility of the proposed standards. EPA presumably began its "analysis" by assuming a total amount of emission reductions that would be possible based on a vague assessment of available technology. Based on that assessment, EPA announced the emission levels that it wanted and then sought supporting data for those levels." (Engine Manufacturers Association)

"By failing to provide sufficient time, EPA has effectively deprived stakeholders and other interested parties of their due process rights to provide studied comments on all aspects of the rulemaking." (Detroit Diesel Corporation)

"This Rulemaking, however, is on a course to bypass many of the valuable processes EPA and industry have employed in the past. A rush to promulgate these rules by the end of this year will seriously jeopardize the industry's ability to deliver commitments and EPA's assurance that air quality claims will be reached." (Cummins)

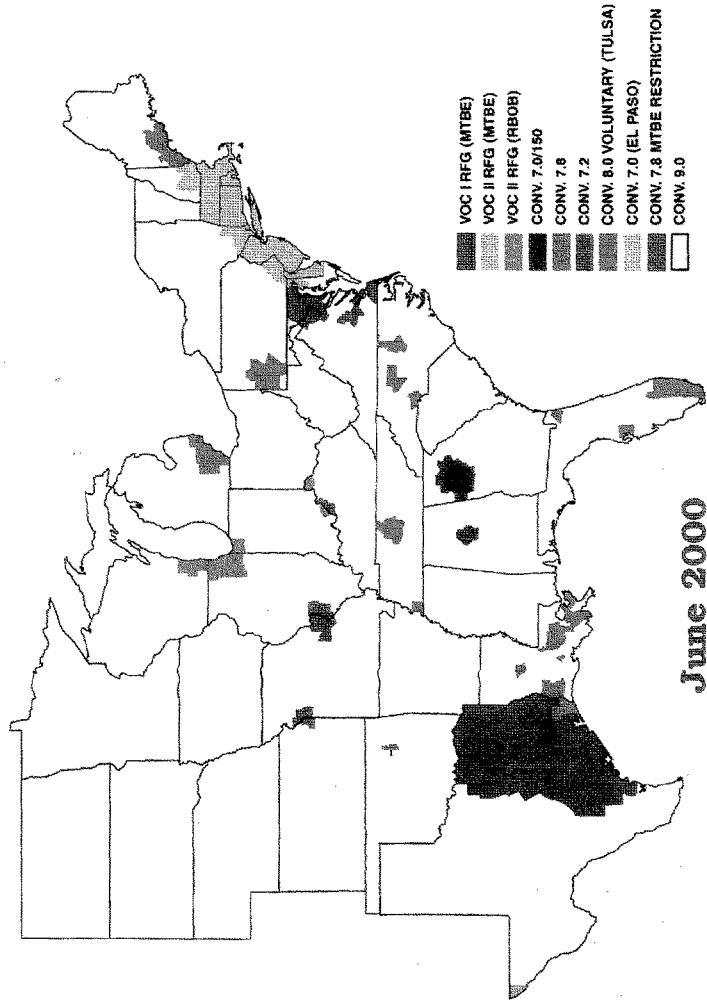
"With no explanation or justification, EPA has chosen to propose a regulatory scheme without the meaningful exchange of technical information and ideas that preceded prior proposals... For such far reaching standards, extraordinary and as yet undeveloped technology will be needed, and huge investments in time and resources will be committed. It is irresponsible for EPA to rush into this Rule which will not go into effect for seven years. In addition, all of those efforts will be squandered if, in the final analysis, EPA has set an unachievable and unworkable approach." (Cummins)

"EPA's failure to make available to interested parties key aspects of this rulemaking — aspects on which the standards and, indeed, much of the proposed program rely — is simply unfair and cannot be justified... EPA has failed to provide interested parties due process of law to review, analyze and provide meaningful comment to EPA on its proposal... EPA has not met its obligations under the CAA [Clean Air Act]." (Engine Manufacturers Association)





Current Summer Gasoline Requirements



Mr. BURTON. We are going to have the head of the EPA here as well as the head of the Energy Department, and I want to make sure we ask them those questions.

Mr. Hildebrand.

Mr. HILDEBRAND. Thank you, Mr. Chairman, members of the committee. I appreciate the opportunity to provide testimony today on this matter of national importance.

My name is Curt Hildebrand. I am vice president of project development with Calpine Corp. Calpine is a leading independent U.S. power company. We are headquartered in San Jose, CA. Calpine is the Nation's largest producer of green power or renewable power. Our future development objectives are the most ambitious in the Nation.

Our company is targeting to build and operate a modern 40,000 megawatt portfolio throughout the country by the end of year 2004. This development program will be sufficient to supply the electrical needs for 40 million Americans, and require a capital investment on the order of \$20 billion.

First, I would like to make a few opening remarks about the changing nature of the electric industry. Second, I will review the key benefits of achieving a healthy and competitive marketplace for electricity. Last, I would like to recommend important modifications to present to U.S. EPA in terms of their permitting process based on our experiences.

The generation, transmission, and distribution of electricity is the third largest industry in the United States. There are presently 750,000 megawatts of generating capacity in the United States, and demand for electricity is currently increasing at an annual rate of a robust 3 percent per year.

The electric industry has been restructured at the wholesale level, the wholesale level nationwide, and retail restructuring is proceeding in most States.

Industry uncertainty regarding past and future regulations has led to a virtual standstill in power infrastructure investment. During the 1990's, as we heard earlier, demand for electricity surged 30 percent while supply grew by only 6 percent. Power shortages are becoming commonplace throughout the Nation.

Calpine believes that building new plants is vital to the well-being of our country, and the Congress should promote this transition from outdated, inefficient, and highly polluting plants to vastly cleaner and more efficient plants that Calpine and others are building around the Nation.

Moving on to my second point, I would like to highlight the four major benefits that a modern competitive power industry can provide.

First, reduce costs to consumers. We are now capable of generating power with 40 percent less fuel, given technological advances. Fuel is the largest component of variable operating costs for power plants, so that translates into dramatically reduced costs to consumers.

Second, conservation of resources by burning 40 percent less fuel. We are conserving that for future generations. We heard earlier about how important that will be.

Three, enhanced system reliability. We heard about the power shortages that struck my home region of the Bay area, and these are indeed dramatic. The 1-day worth of outages in Silicon Valley is estimated to have cost local businesses \$75 to \$100 million. So without new plants, we are really incapable of providing the level of reliability that high-tech and modern industry demands.

Last, fourth, improved environmental quality. Technological innovations have led to dramatic environmental improvements and the generation of power as well. Plant emissions that leave smog, acid rain, and global warming can now be reduced by 50 to over the 9 percent. I have detailed in my statement a closer examination of these environmental benefits.

Finally, I would like to make recommendations regarding improvements about the Federal review and permitting of new power plants. It is widely feared by energy experts that our Nation will face increased power shortages in the future. While our facilities show great promise in helping to solve this looming crisis, we are subject to a burdensome regulatory permitting process which has hindered our ability to build modern, environmentally friendly facilities in a timely manner.

Unfortunately, we are frustrated in attempting to build these plants because current permitting procedures allow for the imposition of automatic stays on construction on power plants, even when these stays are based on inaccurate, frivolous, or unsubstantiated claims.

To solve the problem and to encourage the building of new and better power plants, Calpine believes that U.S. EPA regulatory programs should be streamlined to allow environmental permit appeals to be considered on an efficient and effective basis. Furthermore, any appeal of the Federal Prevention of Significant Deterioration program required under the Clean Air Act should not result in an automatic stay of construction.

I want to clearly emphasize, our company is fully committed to satisfying all appropriate regulatory review procedures, including the PSD review. However, the current permitting process imposes unreasonable delays on the construction of new power plants at critical points in the process.

I go on in my testimony and depict an elaborate, detailed summary of a project that Calpine permitted in Sutter County, in Congressman Ose's district. We first proposed this project in 1997. In the interests of brevity, I will summarize the testimony very briefly.

As part of the local, State, and Federal review of that project, Calpine submitted an application for a PSD permit to EPA in January 1998. Over the course of the next 18 months that permit was reviewed by EPA, along with various State and local entities.

The EPA received only one negative comment from a single individual with regard to that permit. That individual lived over 100 miles away from the project site. It was all information that was considered during the normal course of the hearings and proceedings on the project.

The individual then filed an appeal once the final PSD permit was issued. Calpine had begun construction. This was the first new project to be licensed in the State of California. It was a milestone

project to establish new best available control technology thresholds. It was the cleanest plant ever. Yet, this 1½ page appeal was sent to Washington and the project was forced to cease all construction activities.

We went through a great effort to try and have that appeal heard as rapidly as possible. It took about 3½, almost 4 months before that appeal was denied and was found to have no merit whatsoever. That put us back into construction in December. That is our rainy season. We lost roughly 6 months of construction activity.

We have since been requested by numerous entities, including Sacramento, to try and get that project online for next summer, as early as possible next summer. We have gone to double shifts. We are working at night to bring that project online, but again, we feel that this frivolous appeal cost us, Calpine, and the citizens of California dearly. We ask that that be reconsidered.

In conclusion, if our Nation is to meet increased demand for electricity at affordable rates while still meeting our ambitious environmental goals, we must foster the construction of new clean power plants.

Companies such as Calpine understand that in order to construct a new plant, the company must be prepared to implement some of the most stringent pollution control technologies in the world. We are prepared to meet these challenges.

However, we are at a loss trying to cope with the permitting process that tries to work against new plant construction, and allows individuals to stall construction even after their concerns have been fairly considered.

Clearly defined, standardized, and set deadlines must be established for EPA to complete their review of PSD permit applications. Thank you.

Mr. BURTON. Thank you, Mr. Hildebrand.

[The prepared statement of Mr. Hildebrand follows:]

Testimony Of

CURTIS A. HILDEBRAND

Vice President, Project Development

CALPINE CORPORATION

Before the

**U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON GOVERNMENT REFORM**

September 20, 2000

TESTIMONY OF CURTIS A. HILDEBRAND

Mr. Chairman, and Members of the Committee, thank you for inviting me to testify today regarding this important national issue. My name is Curt Hildebrand. I am Vice President of Project Development for Calpine Corporation. We applaud the Chairman and the Committee for holding this series of hearings to better understand the looming electricity capacity shortfall and to consider our views regarding how a crisis may be avoided.

In my testimony, I will address the following fundamental issues. First, I would like to make a few opening remarks about the changing nature of the electricity generation industry and Calpine's role in advancing new, cutting-edge technology and leadership. We believe we have many of the answers to the electricity generation problems that face the nation. However, while our facilities show great promise for helping to solve our nation's energy needs, we are subject to a burdensome regulatory permitting process which has hindered our ability to build modern, environmentally-friendly facilities in a timely manner. Unfortunately, we are frustrated in attempting to build these new, highly-efficient and clean power plants because current permitting procedures allow for the imposition of "automatic stays" on the construction of new power plants, even when these "stays" are based on inaccurate, frivolous or unsubstantiated claims, or claims that have already been thoroughly reviewed by the appropriate governmental agencies.

I will provide the Committee with a very real and illustrative example of the hurdles we must clear in order to build new and better power plants. Calpine will offer two specific suggestions in this regard. First, Calpine believes that the U.S. Environmental Protection Agency ("EPA") regulatory program should be streamlined to allow permit appeals

to be considered on an efficient and effective basis. Furthermore, any appeal of a federal Prevention of Significant Deterioration (“PSD”) permit to the EPA’s Environmental Appeals Board should not result in an automatic stay on construction activities.

Our Nation’s Energy Infrastructure and Calpine’s Industry Leadership

The generation, transmission and distribution of electricity is the third largest industry in the United States. Only the healthcare and automotive industries are larger. There are 750,000 megawatts of generating capacity in the U.S., and demand for electricity is increasing annually by three percent. This demand equates to 22,500 megawatts of new power needs annually plus replacing nuclear, hydropower and aging fossil-fuel plants that are retired from service.

As the Committee knows, the electric industry has been restructured at the wholesale level nationwide, and retail restructuring is proceeding in most states. Restructuring and healthy competition will lead to lower electricity prices, more reliable service and reduced pollution. Nevertheless, the country’s current population growth, a booming economy, and the increasing use of electricity are straining our nation’s power infrastructure. Power shortages have occurred in the Northeast, California and elsewhere. In addition, the nation’s current electricity-producing infrastructure is aging – 45% of the nation’s power plants are over 25 years old – and historically has been a major source of pollution. Older plants cannot adequately satisfy our nation’s current energy demands and certainly cannot compete with the new generation of efficient, clean energy plants.

We believe that many of the problems currently facing the electric generating industry can be prevented in the future only by the addition of new, modern power plants. Modern gas-fired, combined-cycle plants are being built that will lower the cost of electricity

and drastically reduce the impact of power generation on the environment. Calpine believes that building these new plants is important to the well-being of our country, and Congress should promote this transition from outdated, inefficient, and highly-polluting generation plants to the vastly cleaner and more efficient plants Calpine is building.

Calpine Corporation: Overview

Calpine Corporation, based in San Jose, California, is a leading independent power producer in the U.S. and is a recognized leader in our industry. The company produces more renewable “green power” than any other company and our future development objectives are the most ambitious in the nation. To-date, the company has approximately 28,000 megawatts of combined electric generation capacity in existing operation, under construction, and announced development in 27 states and Alberta, Canada. In 1999, ten projects were under construction in six states. Eight new projects have now been announced with construction slated to begin in 2000 and 2001. Together these projects will add 8,400 megawatts to our overall electric production capacity. The company is targeting to install and operate a 40,000 megawatt portfolio by the end of 2004. This development program, which will be sufficient to supply the electrical needs for 40 million Americans, will require a private capital investment of upwards of \$20 billion.

In addition to building new power plants, our company has purchased two significant reserves of clean-burning fuels. Calpine Natural Gas Company provides the Company with its own reserves of natural gas, extensive pipelines in the Sacramento Basin and an experienced development and production capability. Calpine Natural Gas Company has purchased other gas fields in its effort to reduce the cost of fuel to our powerplants and likewise the cost of producing electricity. Calpine also has purchased geothermal plants and

steam fields in Northern California and has become the world's leading producer of electricity from renewable geothermal sources. The company has pursued these cleaner energy resources not only because they allow us to generate power at a lower cost than older technologies using coal, oil and nuclear fuel, but because we believe the public will insist that the next generation of power plants be environmentally benign.

We believe that Calpine's program can help our nation satisfy its own energy needs and reduce our demands for foreign oil. Reducing our dependency on foreign oil is not only good for national security and our economy, but enhanced utilization of natural gas will benefit the environment. In essence, Calpine believes that the development of a modern fleet of power generation facilities operating in a competitive marketplace will yield important benefits for our nation in four principle areas:

(1) Reduced Costs to Our Consumers

Technological advances in the power generation industry now make it possible to generate power using 40% less fuel than the typical utility-style plants that were built in the 1960s and 1970s. This reduction in fuel consumption will help us dramatically reduce the costs of generating power, allowing consumers to realize significant reductions in their electricity bills.

(2) Conservation of Resources

By burning 40% less fuel while generating the same amount of electricity, modern power plants will significantly reduce our nation's consumption of fossil fuels. These important resources can then be conserved for future generations of Americans.

(3) Enhanced System Reliability

The explosion of the digital economy has sparked an increase in growth for electric power as well as the need to ensure that our electrical system can provide reliable sources of power. Unfortunately, our lagging development of new power generation and transmission facilities in the U.S. has further strained our nation's ability to provide highly-reliable electrical power service.

According to past industry norms, a typical utility standard would provide electrical service with an average reliability rating of 99.9%. This level of performance would translate into customers facing average outages of approximately eight hours each year. However, new, high-technology operations demand a much higher level of electrical service; typical internet and high-technology businesses now require service with a reliability rating of 99.9999%, the equivalent of having power outages for only a matter of seconds each year.

As we all are aware, power shortages and blackouts can have dramatic impacts on our economy. The State of California has already endured a record 8 Stage Two electrical emergencies this summer alone – there was only one such alert in 1999. (The California Independent System Operator (“CAISO”), the entity which oversees the operation of the state's electrical grid, calls Stage Two alerts when available reserve margins fall below 5%; Stage Three alerts are called when margins fall below 1.5% and result in rolling blackouts.) This summer's record level of service interruptions in California has had a negative impact on the state's economy and environment.

Moreover, more serious impacts to our economy and public safety result from electrical supply shortages that lead to blackouts. A record heatwave on June 14 of this year forced the CAISO to order the implementation of rolling blackouts in the San Francisco Bay

Area. The failure to institute these rolling blackouts would have placed the entire Northern California transmission grid in jeopardy of collapse. During these blackouts, power to over 100,000 customers was involuntarily cut, street lights ceased operating, businesses went dark, and elderly citizens were without air conditioning as temperatures reached over 110° Fahrenheit. The economic cost of the blackouts to Silicon Valley businesses was estimated at between \$75 and \$100 million.

Thus, our nation's economy will demand a more reliable supply of electrical power in the future. A critical element in providing this reliable power supply will be the addition of new generating facilities. While providing much-needed new capacity, modern plants also operate much more reliably than plants that are 30 and 40 years old and can be counted on when periods of peak demand are reached.

(4) Improved Environmental Quality

Technological innovation has lead to dramatic environmental improvements in the generation of electric power. Modern natural gas-fueled plants now typically emit air pollutants at a fraction of what were emitted into the environment by older plants. Comparing emissions from the typical fossil-fueled power plants built in the 1970s versus state-of-the-art facilities constructed under present day specifications provides dramatic evidence of these improvements. These modern projects can provide the following benefits:

<i>Pollutant</i>	<i>Reduction in emissions, pounds per megawatt-hour</i>
Nitrogen Oxides (NOx)	-97% reduction
Carbon Dioxide (CO2, greenhouse gas)	-40% reduction
Sulphur Dioxide (SO2)	-99% reduction

Thus, the repowering of America's power generation fleet will have a dramatic positive impact on the nation's air quality and environment.

* * * *

Encouraging electricity generation based upon technology advances and utilizing cleaner resources, like natural gas, will enable the American consumer to be able to maintain their current standard of living at the same or reduced electricity cost, while meeting our clean air goals. To achieve these overall goals of increased electricity output, reduced cost, and a clean environment, it is vital that Congress oversee an appropriate regulatory process that promotes the permitting and construction of new electric power plants in an effective and efficient manner.

EPA's Permitting Process Imposes Unreasonable Burdens on the Construction of New Power Plants

Mr. Chairman, over the past several months certain regions of the country -- including California and the desert Southwest -- have experienced severe shortages in available electricity capacity. Recent reports indicate that electricity supply is expected to be even tighter next summer, when many western states experience their highest electricity demand of the year.

While some experts have pointed to numerous causes of this electricity crisis, including faster-than-expected increases over the past several years in consumer and business demand, I believe that one of the most important causes has been the slow pace of development and construction of new sources of electric-generating capacity.

Let me review quickly the recent history of electricity generation. During the late 1980s and early 1990s, there was an abundant supply of relatively inexpensive electricity.

Due to this large supply of available power, electric prices dropped and utilities stopped constructing new power plants. At the same time, many utilities chose to implement load management techniques that helped reduce or manage their customers' electricity needs, thereby freeing up extra capacity for new users. Independent power producers fought to develop new projects, only to encounter a new maze of regulatory requirements and obstacles that more or less prevented many new power plant projects from being constructed.

In recent years, the demand for electricity has, however, dramatically increased. The country's continued economic expansion during the 1990s, based in part on growth in the electricity-consuming high technology and Internet sectors, voraciously consumed much of the excess reserve capacity in electricity markets. Unfortunately, despite warnings of a looming electricity shortage, during this time period many federal and state regulators continued to raise numerous obstacles to new power projects, and many promising new energy plants languished in an interminable regulatory review process. Only recently have many government officials begun to recognize that new, fuel-efficient electric power-generating facilities are desperately needed in many areas of the U.S.

Calpine believes that federal regulatory reforms are necessary to allow companies such as ours to help the nation address the projected electricity shortages currently facing many regions of the country. Chief among these reforms is the need for streamlining in the environmental permitting process for proposed new or expanded power plants. In particular, we believe that Congress should take steps to ensure that the Prevention of Significant Deterioration program (commonly referred to as the "PSD" program) under Title I of the Clean Air Act is revised to eliminate the long delays – sometimes in the form of an "automatic stay" – triggered by permit challenges by various allegedly "interested" parties

where all of the key issues have already been thoroughly and extensively reviewed several times before by the appropriate governmental agencies.

As you know, the PSD program is a detailed pre-construction regulatory review program under the federal Clean Air Act that applies to proposed new facilities such as electric-generating facilities that will be located in areas of the country that have good air quality (*i.e.*, areas that “attain” applicable federal air quality standards). The purpose of this program is to ensure that air pollutant emissions from these new projects are controlled sufficiently to protect and preserve regional air quality.

In order to satisfy the Clean Air Act PSD requirements, project developers are required to prepare detailed analyses of the environmental attributes and impacts of their proposed project, perform time-consuming and expensive modeling of the anticipated air emissions from the project, and install the emissions control technology that is deemed to be the “Best Available Control Technology (“BACT”)” applicable to the particular pollutant or pollutants that could be emitted by the proposed facility in “major” quantities (typically 100 tons per year or more). Calpine generally does not object to the basic PSD program concept or requirements, and the Company invests significant resources to ensure that its projects protect human health and the environment.

The PSD review process – which begins when a project developer’s PSD permit application is filed with EPA or the appropriate state environmental agency – often can take more than a year, and in many instances, several years to complete. There are many layers of governmental review by federal, and state and local agencies. The public is allowed to comment at numerous points in the regulatory review process.

Our company is fully committed to satisfying the appropriate regulatory review procedures and investing the resources necessary to address all of the PSD regulatory requirements. In fact, Calpine believes that by the time the PSD application is submitted, the necessary steps to protect human health and the environment already have been taken. However, the current permitting process imposes unreasonable delays on the construction of new power plants at critical points of the process. Repeated and baseless permit challenges delay new plants and put added pressure on the existing, aging, and higher-polluting power plants. Calpine has experienced firsthand the unwarranted – and extremely expensive – delays that can result from such challenges, particularly when EPA fails to act on the petition in a timely fashion. Therefore, in order to benefit from new power plants, Congress must help to establish a permitting process that fairly, yet efficiently, allows public input but does not delay or halt deserving projects.

EPA has already recognized that the PSD program is in much need of regulatory reform. In fact, as long ago as 1992, EPA first announced its intent to substantially reform the Agency's PSD, and related nonattainment area New Source Review (referred to as "NSR"), programs under Title I of the Clean Air Act. One of the key elements of the Agency's proposed PSD/NSR reforms has been to "streamline" the PSD and NSR review processes.

Eight years later, however, EPA has yet to finalize any revisions to the Agency's PSD rules, and the fate of the Agency's proposed reforms is uncertain. In fact, the directors of 12 state environmental agencies (Alaska, Idaho, Illinois, Kansas, Louisiana, Michigan, Montana, New Mexico, North Dakota, Oklahoma, Ohio and West Virginia) recently notified EPA that they are dissatisfied with the Agency's recent PSD reform efforts,

and have urged EPA to implement “major reform” so that a simplified PSD and NSR regulatory program can be established that provides affected parties with timeliness, certainty, and flexibility, while still protecting human health and the environment. We echo these states’ concerns, particularly with respect to the need for increased timeliness and certainty in the PSD permitting process.

Calpine Speaks From Experience About Costly and Senseless Delay

Mr. Chairman, we believe that one story aptly illustrates the problems created by the current permitting process that can lead to electricity shortages in the future. In 1998, Calpine committed to build a new, clean-burning natural gas-fueled power plant in Sutter County, California. This new plant was a “milestone” project for California. It became the first new energy facility licensed in the state’s deregulated electricity marketplace. This plant was intended to serve the electrical needs for over 500,000 households in the greater Sacramento Valley.

The Sutter project was designed to establish a new environmental benchmark as the cleanest natural gas power plant ever licensed by the California Energy Commission. Additionally, this plant will conserve precious natural resources by utilizing 40 percent less fuel than existing utility scale plants in operation today. This dramatic increase in efficiency is projected to save California ratepayers over \$400 million in its first year of operation alone. But construction of this plant was threatened by a single individual living approximately 100 miles from the plant who was able to abuse the permitting process.

Early in January 1998, Calpine filed an application with EPA for a PSD permit to build the Sutter power plant. On June 14, 1999, EPA Region IX solicited comments on its proposal to issue a permit granting approval to proceed with the construction of the new

Sutter plant. During the comment period, EPA received only one negative comment on the proposed construction of the plant while hearing numerous comments overwhelmingly supporting the need for this plant. The Agency thoroughly investigated this one comment and fully responded to this comment in writing, even though EPA itself recognized that the comment was frivolous and questioned whether there was a need at all to respond to it in the first place. In fact, many of the concerns alleged by this commentator had no basis in law and had been thoroughly addressed during prior hearings on the project by the California Energy Commission and in the Final Environmental Impact Statement prepared by the Western Area Power Administration.

EPA Region IX issued Calpine its final “PSD Approval to Construct” on July 21, 1999, with the Sutter project establishing a new more stringent benchmark for the “Best Available Control Technology” limit for emissions. In fact, EPA determined that the emissions from the plant would be well below the maximum allowable standard as defined by the National Ambient Air Quality Standards and that because Calpine also purchased Emission Reduction Credits from other parties in the area, ultimately the air quality in Sutter County actually would improve if this permit was issued.

Calpine has a fundamental corporate philosophy of being a valued and responsible corporate citizen in all of the communities where we operate our new power plants. As evidence of this commitment, Calpine had proposed to partner with Sutter County to help its citizens enjoy the wide-ranging benefits of this new plant. For example, Calpine committed to provide Sutter County with \$2.5 million over ten years to assist the County with its ongoing efforts to improve levees and provide enhanced protection from flooding. In addition, Calpine had committed to providing below-market priced power to new businesses

located in Sutter County and to advance funds for much-needed fire fighting and emergency response equipment.

Remarkably, despite EPA's (as well as every other necessary local, state and federal agency's) approval, construction was again halted and further threatened by another claim for appeal, even after EPA had granted approval. Having failed in several previous attempts to block construction, the same individual commentator whose arguments had been rejected on several previous occasions appealed EPA's decision to issue the PSD permit to the U.S. Environmental Appeals Board. It is important to note that this appeal, which arrived on the last day of the appeal period, did not focus on federally-enforceable air permit issues; instead, the comment letter might be fairly characterized as a general letter of opposition to the proposed plant, not an appeal of the federal air permit. Nevertheless, under the Board's review procedures, this appeal, regardless of merit, forced EPA's Environmental Appeals Board to delay issuance of the final PSD permit, effectively creating a "stay" of any construction of the plant until the appeal was heard and reviewed.

Mr. Chairman, in all due respect and despite the Board's policy to give priority to PSD petitions for review, working through the federal bureaucracy is a slow, arduous and expensive process. The mere fact that no new claims were presented at all in this appeal and that EPA and other regulators already had fully considered this claim should have resulted in an immediate denial of this appeal. But no such action was forthcoming; as you may be aware, because of its backlog it can unfortunately take the Board many months to consider an appeal regardless of its merits, causing companies many millions of dollars and valuable lost time while awaiting a decision to go ahead. The Board's appeal process does not currently allow for a motion for summary dismissal of frivolous claims.

The inability to engage in construction activities coupled with the lack of a summary process meant that virtually all construction activities came to a grinding halt at the Sutter project. Due to this automatic “stay” on construction in this case, Calpine lost millions of dollars tying up construction equipment and personnel, and a power plant critically needed in California was unreasonably delayed. Support letters for an expedited consideration of this appeal were submitted to the Board by Sen. Dianne Feinstein (D-CA), Sen. Barbara Boxer (D-CA), Rep. Doug Ose (R-CA), Rep. George Miller (D-CA), California Energy Commission Chairman William Keese, California Independent System Operator CEO Terry Winter, Chairman of the Sutter County Board of Supervisors Dennis Nelson and Rich Ferguson, California Sierra Club Energy Chair, among others. Finally, after nearly four months of pleading our case, the Board denied the appeal on December 2, 1999, ruling that the claims in the appeal lacked any merit whatsoever.

The Sutter County project is recognized by local, state and federal regulators as a vital link in the broader scheme of electrical reliability and grid support in California. Nevertheless, a single individual was able to prevent temporarily construction of the plant and cost Calpine, and for that matter the electricity users, millions of dollars through a process that allows and fosters multiple opportunities to cause havoc. Importantly, the Sutter plant was originally scheduled to be on line in May 2001 in order to help meet the summer peak demand season. The delay caused by this appeal has jeopardized our ability to meet this peak season. We have gone to great measures to expedite construction activities including utilizing a second labor shift during evening hours.

Given this experience, Calpine strongly recommends that the current federal regulatory process be amended to streamline and facilitate the construction of new power

plants. To effectively achieve this goal, at the very least this process must be amended to carefully avoid the imposition of unwarranted delays for no just cause.

There Must Be a Better, More Efficient Way to Permit New Construction

If our nation is to meet the increased demand for electricity at affordable rates, while still meeting our ambitious environmental goals, we must foster the construction of new, clean power plants. Current federal, state, and local regulations ensure that such plants will protect human health and the environment. Companies, such as Calpine, understand that in order to construct a new plant, the company must be prepared to implement some of the most stringent pollution control technologies in the world. We are prepared to meet these challenges. However, we are at a loss trying to cope with a permitting process that works against new plant construction and allows individuals to stall construction even after their concerns have been duly considered. Calpine supports public participation and input, but we cannot and should not be forced to delay our projects while we fight meritless claims that have already been thoroughly reviewed and are designed to keep new construction from happening.

Calpine believes that EPA's proposed reforms to the Title V air permit program may provide a useful example of the types of reforms that should be implemented in the Agency's PSD program. For example, over the past several years EPA has been working to provide facility owners with increased flexibility in complying with their Title V permit terms and conditions, defining set timeframes for agency review and completion of proposed permits, and eliminating unnecessary or extraneous permit conditions.

Similarly, clearly defined, standardized, and set deadlines must be established for EPA and state agencies to complete their review of PSD permit applications. In addition,

Calpine advocates that specific deadlines be established for agency action denying or approving private party challenges to proposed PSD permits. Finally, EPA should not automatically stay construction of new power plants merely because a challenge to a permit has been filed. EPA should consider issuing a stay only when a challenge presents clear and substantiated evidence that EPA may wrongly have approved a permit.

Mr. Chairman and Members of the Committee, I thank you for your time, attention, and the opportunity to share Calpine's insights with you. I would be happy to answer any questions you might have at this time, or in writing at a future date. I have provided your staff with a written transcript of my testimony. Thank you.

Mr. BURTON. Mr. Hawkins.

Mr. HAWKINS. Thank you, Mr. Chairman. Mr. Chairman, we are in a period of tight energy supplies and high energy prices. It is not the first time we have been here. Today we are hearing claims that environmental regulations are to blame for some of these problems, and if we roll back or waive certain requirements, that somehow we will produce new supplies and solve our problems. That is not the first time those claims have been made, either.

I was around in 1973 when the President and others at the time of the first oil embargo stood up and basically said the environmental regulations, the Clean Air Act, were to blame, and that they should be modified. Congress fortunately did not take the President's advice, and had they done so, we would have increased pollution but we would not have solved our problems.

In 1979, at the time of the Iranian revolution, we had another episode of the same supply constraints and another episode of accusations against environmental regulations, calls to the Energy Regulation Board, all aimed at focusing on a rapid expansion of supply in order to solve our problems.

Mr. Chairman, I would suggest that a more robust, more durable, certainly less politically contentious and more supportive of the public health and environmental aspirations of the American public—a path that will work better on all those regards is one to drill our most reliable source of energy, which is the energy we waste.

We waste a tremendous amount of energy still today. We have opportunities to improve our supplies of energy by reducing the amount we waste. Just a statement of the obvious, no consumer values a kilowatt of electricity or a gallon of gasoline or heating oil for itself. We pay money for these things because of the services they provide us: mobility, comfort, lighting, communications, and other qualities of life.

If we can find ways to constantly improve our ability to provide these services and use less energy, we win. We win environmentally, we win economically, we win from a standpoint of national security.

Or we can try the recommendation for short-term crash efforts to produce a burst of new supplies. We don't think that that will solve our problem. The compound interest rate is inexorable, and if we keep on growing, we will always outgrow our ability to produce new supplies.

If we manage the rate at which we increase our dependence on energy, or better yet, improve our economy's ability to produce dollars without consuming kilowatts or Btus, we win. We manage our own future and our own destiny because we have more leverage on managing demand than we do on supply.

For example, the United States is about 12 percent of the world's oil production, but we are 25 percent of the demand. That means we have more leverage by changing our demand than we do by production. Every percentage change in our demand has twice the leverage as a percentage than it does if we tried to supply our way out of this problem.

Mr. Chairman, you asked the witnesses two questions: What can Congress do? And what can the administration do? Here are some answers that I would give.

First, Congress can enact a comprehensive electric restructuring bill that has elements that will help solve these problems: first, programs to rebuild support for efficiency, programs which have suffered at the hands of deregulation. The second program is to promote supplies of renewable energy as part of the portfolio of electric generators. Third would be strong anti-pollution requirements, which will create real economic incentives both to use less energy, to use it more efficiently, and to build the kind of new, efficient power plants that Mr. Hildebrand has been talking about.

Second, Congress can enact tax incentives for efficient buildings, efficient vehicles, and co-generation investments.

In the other body, Senator Smith has introduced Senate bill 2718. In this body, Congressman Matsui has introduced 2380. These bills would save enormous amounts of energy and then enormous amounts of money for American consumers by creating tax incentives to upgrade existing facilities and to build new, efficient facilities.

Next, something that both Congress and the administration can address is to upgrade the vehicle efficiency standards for fuel efficiency. These standards are dramatically out of date, and unfortunately, since 1995, Congress has enacted riders that have prevented the administration from upgrading the vehicle's CAFE standards.

We think it is logical to move ahead now. We have the technology. We are seeing manufacturers get out in front of the government, but what they are offering, as the previous witness indicated, will not solve their problem. But we could save another 3 million barrels a day of oil by updating and modernizing our CAFE standards.

One thing Congress could do is simply not enact the rider this year, let the administration explore what the options are for modernizing those standards.

Another important administration program are the efficiency standards for appliances and equipment. A number of those standards have been issued. Many of them have been issued in a negotiated fashion with the manufacturers, so that everybody wins.

These programs deserve even higher priority. They deserve more support from Congress, and they deserve even higher priority from the administration.

These and other actions will make our economy less dependent on large volumes of energy and less vulnerable to supply disruptions and price spikes. They are durable solutions, and I would urge you to consider them.

Mr. BURTON. Thank you, Mr. Hawkins.

[The prepared statement of Mr. Hawkins follows:]



NATURAL RESOURCES DEFENSE COUNCIL

Hearing on Energy Costs
before
The Committee on Government Reform
United States House of Representatives

Testimony of David Hawkins
Natural Resources Defense Council
September 20, 2000

Summary

- The United States can adopt effective policies to reduce vulnerability to tight energy supplies and the resulting high prices of fuels and electricity. Our best, cleanest, and most secure source of energy supply lies not in increasingly remote fossil reservoirs but in expanded efforts to reduce the amount of energy we use to produce a dollar of economic growth. Our best weapon against OPEC and high prices is the ingenuity of American firms that will find ways to reduce our energy intensity if given the right support and incentives.
- Waiving environmental standards and programs in pursuit of new energy supplies will harm health and the environment Americans cherish but it would not solve our energy problems.
- Congress has before it a number of measures that if enacted would help speed the arrival of an economy that is less vulnerable to energy shortages and price spikes. These proposals include incentives for more fuel efficient vehicles, incentives for more energy efficient buildings, programs to support renewable energy supplies and efficiency programs as an integral part of restructuring the electric generating industry, and repeal of the grandfathering of old polluting powerplants, to both clean the air and promote construction of new, highly efficient generators.
- Administrative actions also play an important role. Most important is the opportunity reduce our dependence on imported petroleum by increasing the fuel efficiency of vehicles, particularly SUVs and other "light trucks." Riders that block such action are guaranteeing higher gasoline and oil prices than necessary. In addition, more rapid development and updating of appliance efficiency standards will help to lighten the load on our electric system.

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My name is David Hawkins, and I represent the Natural Resources Defense Council. I appreciate the opportunity to appear before you today. My testimony will highlight a few of the many opportunities you have to promote policies that both protect the environment and reduce the amount Americans spend on energy.

The Natural Resources Defense Council is a national, non-profit organization of scientists, lawyers, and environmental specialists, dedicated to protecting public health and the environment. Founded in 1970, NRDC serves more than 400,000 members from offices in New York, Washington, Los Angeles, and San Francisco.

First, a statement of the obvious: no consumer values a kilowatt of electricity, or a gallon of gasoline or heating oil for itself. We pay money for these commodities for the services they provide us: mobility, comfort, lighting, communications, and other qualities that make modern life enjoyable. If we can find ways to constantly improve our ability to provide these services with fewer units of energy we win. We win economically and we win environmentally.

Short-term crash efforts to provide a burst of new supplies by themselves will not solve our problems. Without sustained programs to search out and deploy untapped opportunities to use energy more efficiently we will stay on a treadmill that moves faster and faster and is more and more vulnerable to disruption.

That is not to say that new supplies don't have role to play. New supplies are in fact being produced. In California, for example, 3,500 megawatts of new electric capacity already have been permitted and 10,000 megawatts should be permitted by next summer (that is about 20% of California's peak load). NRDC and other groups have supported bills, such as Assembly Bill 970 in California, to streamline the siting of new cleaner generation sources. But new supplies are not by any means the whole answer.

Some Opportunities in the Electric, Natural Gas, and Heating Oil Sectors

There are a wide range of actions that can increase the reliability and performance of our electric supply system. Let me mention a few.

- Restoring effective utility and government programs to carry out cost-effective energy efficiency actions for commercial, industrial, and residential customers;

- Expanding programs to provide discounts for customers that shift their consumption to off-peak periods;

- Promoting clean, distributed generation technologies by adopting simple interconnection rules and streamlined permitting;

Enacting a Renewable Portfolio Standard to expend the fuel supplies available to electric generators;

Accelerating the adoption of additional and improved efficiency standards for new appliances, lighting, and heating & cooling systems.

Many of these initiatives are contained in electric restructuring bills such as Congressman Pallone and Campbell's H.R. 2569.

Tax incentives for energy efficient buildings and equipment can also reduce the amount of natural gas, heating oil, and electricity we need to run our homes, businesses, and schools. Senator Smith's S. 2718 would provide such incentives and produce huge savings in energy, energy bills and pollution. Under S. 2718 peak summer demand is projected to drop by 20,000 megawatts (the output of 40 large powerplants) and direct economic savings to consumers would exceed \$40 billion.

Opportunities in the Petroleum Sector

First, the United States can not produce its way out of vulnerability to oil price spikes.

Oil is a global commodity. The price of oil is therefore determined primarily by international markets. This will continue to be the case regardless of the level of domestic oil production unless the United States wants to return to an era of price controls *and de facto* rationing, which is not an experience that anyone is anxious to repeat. In other words, as long as U.S. oil markets remain open, the price of gasoline in Chicago, Detroit and Washington will fluctuate with global oil prices, even if the United States did not import any oil. Changes in domestic oil production will, therefore, only affect oil prices to the extent that they influence the global supply/demand balance. The United States, however, only produces about 12% of global petroleum supplies, so even large changes in domestic production will have only a marginal effect on global markets. Over the long term, the U.S. share of global production will inevitably decline further. The United States has only 2 percent of world oil reserves, while Gulf State OPEC members control about two-thirds of proven reserves. Opening the coastal plain of the Arctic National Wildlife Refuge to oil exploration would not appreciably change this situation. USGS's mean estimate is that 3.2 billion barrels could be economically produced, which would add just 0.3 percent to global reserves.

In contrast, the United States is responsible for about 25% of world petroleum demand. This fact alone indicates that we can have a much larger impact on global markets on the demand side than on the supply side. This conclusion is strengthened by the fact that there are large untapped energy efficiency resources whereas our most abundant and accessible oil resources have already been exploited. I will return to this point.

Second, rolling back environmental standards governing the oil industry would damage irreplaceable natural resources

The data presented above makes it clear that rolling back environmental standards would be totally ineffective as a policy response to recent or anticipated oil price spikes. This would, however, put irreplaceable natural resources at risk. The oil industry has made significant progress in reducing the environmental impacts of its operations, but oil production remains an inherently damaging and risky activity that is simply incompatible with protecting fragile natural resources, such as remaining coastal wetlands and wildlife refuges. For example, offshore oil and gas development continues to result in oil spills, the release of drilling waste, dumping of contaminated "produced water" and on shore impacts from terminals, pipelines and other facilities:

Oil spills. This is the most obvious impact of offshore development. While platform blowouts resulting in large spills are rare, pipeline spills are not. According to DOI statistics, from 1986 through 1997, some 2 million gallons of oil was spilled from OCS oil and gas operations. In January of this year, an oil pipeline in the Gulf of Mexico ruptured after becoming fouled with an anchor from a drilling rig and spilled some 94,000 gallons of crude oil into the Gulf about 120 miles south of New Orleans.

Drilling waste. Drilling operations generate more than a thousand tons of drilling waste per well. Toxic pollutants in drilling waste include lead, naphthalene, arsenic, copper and selenium. Suspended solids in drilling waste can smother bottom dwelling organisms and alter critical benthic habitats. Disposal of OCS drilling wastes typically involves dumping it over the side untreated.

Produced water. "Produced water" (brine in the formation that is brought up along with oil from a well), is generated in massive quantities by production operations. Produced water contains a variety of toxic pollutants, including benzene, toluene, and the radioactive pollutants Ra 226 and Ra 228 (produced water generated off Louisiana has been found to contain levels of radioactivity higher than that permitted to be discharged by nuclear power plants and higher than the level that distinguishes hazardous from non-hazardous waste under RCRA).

Onshore impacts. Offshore oil and gas extraction typically requires extensive onshore industrial development to process and transship oil or gas. Pipelines, storage facilities, processing facilities and other industrial infrastructure built to support offshore oil and gas has resulted in substantial environmental damage to coastal resources. For example, a study done for NOAA in the 1980's conservatively estimated that offshore pipelines crossing coastal wetlands in the Gulf of Mexico had destroyed more coastal salt marsh than exists in New Jersey through Maine. Particularly in areas where little infrastructure presently exists, onshore impacts can be expected to be substantial.

Renewed calls for opening the Arctic National Wildlife Refuge to oil exploration are generally accompanied by claims that the environmental impact would be minimal, yet a

review of the impact of existing oil development in Alaska tells a different story. Once part of the largest intact wilderness area in the United States, Alaska's North Slope now hosts one of the world's largest industrial complexes. More than 1,500 miles of roads and pipelines and thousands of acres of industrial facilities sprawl over hundreds of square miles of once pristine arctic tundra. Impacts include air pollution, spills and waste:

Air pollution. Oil operations on Alaska's North Slope emit tens of thousands of tons of oxides of nitrogen annually, which contribute to smog and acid rain. In addition, North Slope oil facilities release tens of thousands of tons of methane, a potent greenhouse gas that contributes to global warming.

Spills. Each year, hundreds of spills involving tens of thousands of gallons of crude oil and other petroleum products and hazardous materials occur on the North Slope. In 1995, approximately 500 spills occurred involving more than 80,000 gallons of oil, diesel fuel, acid, biocide, ethylene glycol, drilling fluid, produced water, and other materials.

Waste. Oilfield activities generate tens of thousands of cubic yards of sewage sludge, scrap metal, garbage, and waste every year.

Third, the United States has major opportunities to reduce its dependence on petroleum

Almost thirty years after the first OPEC oil embargo the United States is still dependent on petroleum for 97% of its transportation energy needs. As a result, two-thirds of our petroleum consumption goes to fuel transportation. With average efficiencies declining for new vehicles, and a 21 percent increase in miles driven between 1990 and 1998, the petroleum dependence of transportation is continuing to rise.

CAFE standards helped double vehicle efficiencies from 1975 to the late 1980s, reducing the impact of high oil prices on consumers. This is the most effective policy that Congress enacted in response to the oil crises of the 1970s, and it can be used again to protect citizens from fluctuations in oil prices such as those we are now experiencing. Unfortunately since 1995 provisions in the transportation appropriations Acts have prohibited the Department of Transportation (DOT) from even examining the need to raise the Corporate Average Fuel Economy (CAFE) standards. As a result of this rider and the growing market share of SUVs, the average fuel economy of all new passenger vehicles is at its lowest point since 1980. Congress should allow DOT to implement the law as intended, and study the technical feasibility and economic practicability of raising standards.

SUVs should be held to the same efficiency standards as other passenger vehicles, by ending their classification as light trucks. The weaker CAFE standard for light trucks was intended to allow for legitimate differences between commercial vehicles and passenger vehicles, but allows SUVs to consume one-third more oil per mile than cars. With SUVs and other light trucks now accounting for half of new vehicle sales, this unintended loophole must be closed. The technology currently exists for SUVs to meet

the tighter standard for cars, at an estimated additional cost of \$575, which is recouped in less than two years from savings in gasoline bills

Recent analysis shows that CAFE standards could be raised to over 40 miles per gallon for new cars and light trucks by 2010. This would result in oil savings of about 3 million barrels per day below business-as-usual projections, with a net economic gain for consumers of \$69 billion over the life of the vehicles.

To complement higher fuel economy standards, Congress should enact tax incentives to encourage consumers to purchase energy efficient products, and to spur the production of energy from clean, renewable resources. By providing a direct financial reward, incentives can help to overcome market barriers to the full commercialization of new technologies. The tax code already provides incentives for some efficiency and clean energy measures, but major areas are currently left out of what could be a comprehensive tax policy.

In particular, "hybrid" vehicles integrate a conventional gasoline internal combustion engine and on-board battery-electric power into a single drivetrain. These vehicles have the great advantage of requiring no additional fueling infrastructure, and are likely to provide a transition path to electric and fuel cell cars. Hybrid cars available commercially for the first time this year in the U.S. are capable of fuel efficiencies of 60 to 70 miles per gallon, 2 to 3 times that of the average new passenger vehicle. Consumer tax incentives for clean highly-efficient hybrid vehicles would facilitate the rapid commercialization of this promising technology.

TRUTH-IN-TESTIMONY DISCLOSURE

Part I: Witness Identification

1. Name: DAVID G. HAWKINS	2. Address: 1200 New York Avenue, NW Suite 1200 Washington, D.C. 20005
3. Phone Number: 202 289-6868	

Part II: Group Identification

4. Please identify the group(s) or organization(s) on whose behalf you are testifying. If you are not testifying on behalf of any group or organization, please indicate "none." Natural Resources Defense Council		
5. Are you testifying on behalf of a governmental organization, meaning a federal department or agency, or a state or local department, agency, or jurisdiction? (If "yes," skip to item 7.)	YES X	NO X

Part III: Federal Grants and Contracts

6a. Have you, or any of the organizations or groups which you may be representing, received any federal grants or contracts (including subgrants or subcontracts) that are relevant to the subject of the hearing during the current fiscal year or any of the two (2) preceding fiscal years?	YES X	NO
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6b. If you checked "yes" for item 6a above, please list the source and amount for each grant, contract, subgrant, or subcontract, received within that period. Please attach additional sheets if necessary.		
Source	Amount	
Market-Based Energy Transformation EPA	\$1,133,000	FY96-99*
Promoting Energy Economies in Transition EPA	\$499,000	FY95-99
Evaluating Emissions from Hybrid Electric Defense Department	\$113,000	FY95-98
**SEE ATTACHED SHEET		

Part IV: Signature

7. Please sign and date indicating that to the best of your knowledge the information provided on this form is both true and accurate.	
Signature	Date

*NRDC fiscal year is from July 1 to June 30.

**FEDERAL FUNDING RECEIVED BY
THE NATURAL RESOURCES DEFENSE COUNCIL
FOR FISCAL YEARS 1995-1999**

NRDC projects receiving federal financial support in NRDC fiscal years () 1995, 1996, 1997, 1998 or 1999 are described below.*

() NRDC fiscal year is from July 1 to June 30.*

Market-Based Energy Efficiency Transformation

In the 1980s, NRDC initiated one of the first successful market-based energy efficiency programs in the United States – the Super-Efficient Refrigerator Program (SERP). Also known as the Golden Carrot program, it established a contest with a substantial reward for the appliance manufacturer that could produce and market a new generation of efficient refrigerators. The Golden Carrot program's benefits to consumers are reduced energy bills for a major home appliance, and reduced air emissions and pollution. NRDC has received EPA funding in support of efforts to spread the success of the Golden Carrot approach to other products and designs in a variety of consumer and business products. Current projects funded by this grant include clothes washers, compact fluorescent lamps and fixtures, and industrial motors. Over fiscal years 1996 through 1999, NRDC received \$1,133,000 in EPA funding support.

Promoting Energy in Economies-in-Transition

Due in large part to the inefficiency of the economic system inherited from the Soviet Union, Russia has the dubious distinction of being the world's third largest emitter of the global warming pollutant carbon dioxide—despite having a lower level of economic production than numerous other countries. This project's objective is to transfer American expertise in energy efficiency to Russia, reducing that country's contribution to global environmental problems.

The project involves collaboration between Russian regional government agencies, Russian non-profit organizations, American local governments, universities, and public-interest organizations to help the Russians develop and implement building energy-efficiency standards that will provide cost-effective reductions in energy use. NRDC is leading the American side in this effort. EPA support for this project includes \$499,000 over fiscal years 1995 through 1999.

Evaluating Emissions from Hybrid-Electric Trucks, Buses and Other Heavy Vehicles

NRDC and CALSTART, a California non-profit public benefit corporation, are comparing the emissions performance of hybrid electric heavy-duty vehicles and conventional vehicles operating on several different fuels. The goal of the study, which is funded 50% by NRDC and 50% by the Advanced Research Projects Agency, part of the Defense Department, is to develop benchmark estimates of the potential for hybrid trucks and buses to reduce air pollution and energy consumption. The study will help develop advanced transportation by (1) developing and refining technology that will permit the widespread use of electric and hybrid-electric vehicles and (2) facilitating the conversion of California's highly technical aerospace and defense labor force to advanced transportation. For this project, NRDC received approximately \$113,000 funding over fiscal years 1995 through 1998.

Mr. BURTON. We will now go to the extended questioning.

Mr. McHUGH, the gentleman from New York.

Mr. MCHUGH. Thank you, Mr. Chairman.

Mr. Hawkins, let me start with you. You reference 3 million barrels of petroleum a day saved by higher CAFE standards. Did I hear you correctly?

Mr. HAWKINS. Yes, sir.

Mr. MCHUGH. Could you source that for me?

Mr. HAWKINS. There are several different sources. The Presidential Commission on Energy's report has that value. The American Council for an Energy Efficient Economy also has that. I can give you citations.

Mr. MCHUGH. I would appreciate that. I would like the sources.

If you have the opportunity—I know there are opposing views to that. If you have any sources that suggest that is an unreasonable one—I know that is not your objective, but I would appreciate those, as well.

How many barrels of oil a day do Americans consume presently?

Mr. HAWKINS. About 19 million.

Mr. MCHUGH. 19 million? Does the rest of the table agree with that?

Mr. HILDEBRAND. Yes.

Mr. MCHUGH. I don't see any objection. Thank you very much. Let me start with Mr. Simon, now.

Mr. Simon, you mentioned that your company is beginning to build stockpiles now that we are through the summer driving season.

Mr. SIMON. That's correct. We are producing all the distillate that we can in our refineries today. We are carrying inventories sufficient to meet our customer requirements, and then we are also selling stock.

Mr. MCHUGH. The API reported yesterday that distillate fuel inventories, which include heating oil, are, in the recent calculation, about 116¼ million barrels. That is 20 percent less than last year's level. Do you think that is an accurate figure?

Mr. SIMON. Yes. I do think it is important, though, too, when we compare against last year, to remember that last year was an extraordinarily low inventory year. If we look at the last 5 years, I think it might be a more accurate way of looking at it. It is still on the low side.

Mr. MCHUGH. That was going to be my next question. Do you expect to hit—if you are telling me that last year was low, and you are 20 percent below last year—

Mr. SIMON. I'm sorry, the other way around.

Mr. MCHUGH. You used the word "low." Do you mean high?

Mr. SIMON. I stand corrected. If we look at the last 5 years and make that comparison, it does not look as low, relatively speaking, as it does.

Mr. MCHUGH. Are you going to hit the last 5 years average in stockpiles?

Mr. SIMON. If we look at the current rate of inventory billed and project that into the November timeframe, it will end up in that band but toward the low end of that band.

Mr. MCHUGH. Compared to last year, you expect to be 20 percent below?

Mr. SIMON. I think it would be difficult to predict exactly where we are going to be, but I would come back to a comment that Mr. Santa made. I think it is an important one.

When we look back at the 1996–1997 winter and we look at the inventory levels that we have today, which are essentially where we were then, we got through that winter really with no problems. So it is difficult to predict, obviously, what weather is going to do. That could have a major impact.

But given a normal kind of winter, which 1996 and 1997 was, which was actually colder than what we have seen over the last few years, we were able to accommodate that with inventory levels about where they are today.

Mr. MCHUGH. You said during your testimony that supplies will be sufficient. I understand there are vagaries that you cannot predict. None of us here are God, in spite of what we say during election years.

But what concerns me is what is the nexus between sufficient supply and consumer cost. You said in 1996 and 1997—I don't believe you are telling me that the price of a gallon of home heating fuel is going to be the same this year as it was in 1996 and 1997?

Mr. SIMON. No. No one can really, I don't think, predict what it is going to be at that particular point in time.

What I was trying to address is the supply side of this. I am not smart enough to figure out what the price is going to be, but I do think from a supply standpoint, we are planning for normal winter conditions, and I think we will meet the supply requirements, given that circumstance.

Mr. MCHUGH. The best you can say to consumers is you are optimistic that they are not going to see a missed delivery of home heating fuel, but you are not going to suggest what the price will be?

Mr. SIMON. No, I am not going to try to predict that.

Mr. MCHUGH. Do you have a disagreement with those on the first panel, as has been reported by virtually every oil analyst that I have had the opportunity to read, that the price of home heating fuel is going to be 20 percent or higher next year—I think 20 percent is probably at the low end of that spectrum—than last year.

Mr. SIMON. I have been in this business long enough to know that I am not in a position to predict what oil prices are going to do or what the price might be 2 or 3 years into the future.

Mr. MCHUGH. Is there anybody in your company who is?

Mr. SIMON. No. We do not take a position on prices.

Mr. MCHUGH. You just take them, you don't take a position? I am confused.

Mr. SIMON. In other words, we do not take steps in anticipation of price moves one way or the other. What we look at is what is the most economic way of filling supply requirements, to do that at the lowest cost and a competitive cost.

Mr. MCHUGH. It is hard to believe your stock is doing so well.

Let me ask you, the Saudis and the other OPEC nations have suggested their target is \$28 a barrel of oil. Obviously, if we look

at the North Sea crude yesterday, it was \$33.63 a barrel. We are not there.

Do any of your gentlemen, and I am not picking on you, Mr. Simon, but you are in the oil end of this, do you think there is anything the Saudis can possibly do and the OPEC nations can possibly do to hit a \$28 a barrel target that is going to, in any way, positively affect the heating season this year, given where we are, almost at the end of September? That was No. 1.

No. 2, they just did an increase in production. As you well know, that did not move the market at all. In fact, after that the market actually went up. How much production increase would they have to put on the world market to bring it to \$28 a barrel?

Mr. SIMON. I am certainly not in a position, Congressman—I know you would like for me to be, but I am not in a position to say what impact a certain volume of oil is going to have and what price might be established.

Mr. MCHUGH. Do any of you gentlemen have an opinion on that?

Mr. HILDEBRAND. No.

Mr. MCHUGH. Do any of you gentlemen have an opinion on what the price of product will be this winter for the average consumer in the Northeast for a gallon of home heating fuel?

Mr. SLAUGHTER. Mr. McHugh, all I can offer you is essentially what the Energy Information Administration is saying currently on that. You know, it is difficult for the industry to make price projections or supply projections, but the current EIA estimate is that heating oil on the East Coast will average about \$1.32 and diesel about \$1.51 per gallon, and that is an increase of 12 to 15 cents per gallon over last year's figure.

Those are the EIA's figures.

Mr. MCHUGH. OK we talked a bit about environmental regulation, Mr. Hawkins, you seemed to disagree with those who suggest that maybe the environmental—regulatory environment has gone too far.

You may have heard on the last panel where it was stated that the average time for the permitting construction of a transmission line in this country today is 7 years. Do you think that's a reasonable amount of time?

Mr. HAWKINS. Actually—

Mr. MCHUGH. Pardon me, I don't mean to interrupt you, but I want to get the second phase of that. Remembering that 5½ to 6 years of that was totally from regulatory requirements.

Mr. HAWKINS. Yeah, I did hear the—I heard the testimony. I did not hear a source for it. And I actually would be skeptical if that, in fact, was an accurate figure. I'd be interested in seeing what the statistics are. I doubt that it's 6 years of regulatory permitting. But I don't have a contrary figure to you.

Mr. MCHUGH. I gave you the benefit of the doubt on your sourcing. Let's give the gentleman the benefit of the doubt. And I just want to finish up with Mr. Hawkins and then come to you. Let's say it is accurate, do you think that is reasonable? That's all I'm asking. I'm not asking you to verify it, just asking your opinion.

Mr. HAWKINS. I don't think it should take that long to get government review of any project.

Mr. MCHUGH. We are in agreement, thank you. Yes, sir, Mr. Hildebrand.

Mr. HILDEBRAND. Speaking from experience, from experience in California, a major new transmission project will require typically 7 years, and I hate to use the phrase "fast track." You can see 10 to 15 years as I think was mentioned earlier, if at all. There's no guarantee anymore of getting it done, period.

Mr. MCHUGH. Mr. Hawkins, do you think that's excessive? Assuming that Mr. Hildebrand is accurate?

Mr. HAWKINS. I don't think there is—there's no argument about the value of speeding up decisionmaking processes. That's not—that's not the issue. The question is what—in which ways do you try to speed up the decisionmaking process. If it's restricting public participation, I have a problem with that. I think that public participation is important. It implies a responsibility on the part of the public.

The story Mr. Hildebrand told is one that is disturbing. But one story shouldn't be the basis of policy. We should look more rigorously at the overall pattern of these proceedings and see analytically what can be done to speed up the decisionmaking process.

Mr. BURTON. The gentleman's time has expired.

Mr. MCHUGH. Thank you, Mr. Chairman.

Mr. BURTON. Mr. Tierney.

Mr. TIERNEY. Thank you, Mr. Chairman. Mr. Chairman, today's high energy prices are obviously causing a lot of economic hardship, and I think we heard a lot of that on the first panel that testified. But there's one sector I suspect the gentleman may be able to talk about is one sector of the economy that is profiting quite a deal from the high prices, and that seems to be the oil and the gas industries.

My understanding is that for the first half of this year, the 10 largest oil companies made over \$20 billion in profits. And profits in the second quarter were nearly three times higher than last year. So while American consumers around the country seem to be suffering from these increases in the price of petroleum products, Mr. Simon, for instance, Exxon appears to be making record profits. Can you tell me how much Exxon made in profits just in the second quarter of this year?

Mr. SIMON. Yes, I can. A little over \$4 billion, which is up about 138 percent from where we were last year.

Mr. TIERNEY. And how much does Exxon expect to make this year?

Mr. SIMON. We don't have a projection for the full year, but I would like to put that in perspective, if I might, Congressman. When we compare against last year, I think it is important to remember that last year was a low year in terms of profitability, and so I think a year-to-year comparison can be somewhat misleading in that regard.

Mr. TIERNEY. Nonetheless, you are 138 percent above last year in profits?

Mr. SIMON. That's correct. But again, put in the overall perspective, I think it is important to look at overall timeframe and look at investment over that timeframe, and we are below the Standard & Poors as an industry.

Mr. TIERNEY. A recent Business Week article reported that although the price of oil has been climbing, some of the largest oil companies have actually been producing less oil. The article quotes a Merrill Lynch analyst as saying the lack of production increase from non-OPEC sources is a big reason why prices remain high. The Business Week article notes that Exxon and Royal Dutch slashed their oil exploration and production budgets by more than 30 percent in the first half of this year.

Is that accurate that in the first half of this year, Exxon cut its oil exploration and production budgets?

Mr. SIMON. We cut our exploration and projection budgets. But at same time, I think you have got to look at the merger that we incurred at that point in time. And when you look at where we were as a single company, that would not be the case.

Mr. TIERNEY. No, but it's the case that once you were together, you actually did less than you had done individually.

Mr. SIMON. That is correct, and that is one of the advantages of combining the two organizations.

Mr. TIERNEY. The Business Week article further states that money managers have pressured oil company executives, and I quote, not to not overspend in the pursuit of production increases. The article quotes one of these managers as saying, we give them money, they produce a lot more, and the price goes down.

Was one of the reasons that Exxon cut its oil exploration and budgets to keep supplies low and prices high?

Mr. SIMON. No, certainly not, Congressman. We are pursuing all the opportunities that we have available to us, and I think we are pursuing those very aggressively. I think we've had a fair amount of success in that regard, and we are proud of that, in fact, you do not see, I don't think, ExxonMobil quoted in terms of production increase. And when you look at who we have been able to produce relative to what we have produced, and certainly what we would hope to do in the future, we would expect to be growing production. And I think our track record speaks well in that regard. We're actually looking—

Mr. TIERNEY. It has not been increasing, but you cut your production; is that right?

Mr. SIMON. The expenditure. But I think you have to look at the efficiency of those expenditures and what we're producing as a result of that. What we are doing, it isn't a question of cutting the amount, but it is pursuing every opportunity that we have and how effectively we are able to do that, and the result that we get from \$1 of expenditure. And when you look at that, I think our track record speaks very well. And you are actually looking at expanding our opportunities to do that right here in the United States.

Mr. TIERNEY. Well, if you had not cut your exploration production budgets, would it be fair to say that you might have produced more?

Mr. SIMON. Again, Congressman, we are pursuing all the opportunities we feel are economic and available to us. We are not holding back.

Mr. TIERNEY. So you are not exploring all of them, you are just exploring all the ones that you feel are economically—

Mr. SIMON. Those that we feel have a viability, those are the ones that we're pursuing, and we're not leaving any one of those behind.

Mr. TIERNEY. The Business Week article also says that BP cut its production by 4 percent and Texaco and Occidental Petroleum cut their production by 7 percent. Do you have an idea why these companies are doing that in the face of the supply shortages that we see?

Mr. SIMON. I really can't speak for those other companies, Congressman.

Mr. TIERNEY. Well, one of the root causes for today's energy prices is too much reliance on fossil fuels, I would presume, particularly oil. And that seems to leave us vulnerable to market manipulations by OPEC and perhaps to underproduction by some of our domestic firms. Different people have made statements, energy leaders, that seem to be willing to embrace new technologies. For example, Michael Bowlin, who is the CEO of Arco, told us in February 1999, at a talk at an energy conference in Houston, TX: We have embarked on the last days of the age of oil. He went on to discuss the need to convert our carbon-based energy economy to a hydrogen-based energy economy.

And in 1999, Ford Motor Co. chairman, William C. Ford, Jr., went on record saying: I expect to preside over the demise of the internal combustion engine. Ford has announced that they will have a fuel cell powered vehicle for sale and on the road in 3 years.

Earlier this month Saudi Arabia's foreign oil minister, Sheik Ahmed Zaki Yamani said in an interview: The stone age came to an end not for lack of stones, and the oil age will end, but not for a lack of oil.

So all of those quotes seem to indicate that some industry leaders believe that a future doesn't depend so heavily on oil, but that might be expected. Does ExxonMobil share the view?

Mr. SIMON. We believe that oil and gas is going to be a very major source of energy for the foreseeable future. And certainly we've got to do all we can to develop those sources. This does not mean that we're not looking at other aspects.

Mr. TIERNEY. What are you doing, in fact, for the future of—

Mr. SIMON. We are working with automobile manufacturers and look at hybrid engines and other technology there and working hand in glove with those and looking at how they might develop and what part we would play in that.

Mr. TIERNEY. Can you define for me "looking at." When you say looking at those things—

Mr. SIMON. In other words, studying the options and how it might be done, how it might be done most efficiently and effectively and how we would work together in that regard. But I think it would be a mistake to feel that that is going to be a short-term solution. I think we've got to continue to take advantage and explore all the opportunities for oil and gas that we've got in front of us as well.

Mr. TIERNEY. Mr. Hawkins, do you think that ExxonMobil is doing enough to develop fuels in the new technology area?

Mr. HAWKINS. ExxonMobil is in business to make money, and if the market isn't sending them a signal that they can make money

off of more environmentally friendly technologies, then they're not going to do it. And they're not going to do it no matter how much we try to embarrass them. And that's a shame. But there are ways to get the market to send those signals. We can price energy according to all of the environmental harm that it produces. We can invest in efficiency so that we make ourselves less vulnerable to the supply side the equation.

I think that the major fossil fuel producers are going to wake up to the fact that in the foreseeable future, and that is in the next couple of decades, we are going to be looking seriously at a carbon constrained global economy because of climate change. It is a real problem, and the smart companies are starting to think about diversifying their supply. They aren't going to turn around and produce huge supplies tomorrow, but the smart companies are thinking about diversifying their supply. And they will start to put themselves in a position to produce alternative supplies, more environmentally friendly supplies.

The question is whether they'll do it in time to avoid a lot of disruption. That is where Congress can help, by helping to send policy signals that say to these companies, these multinational companies that the United States is serious about these issues and it wants to join the world community in being serious about these issues.

Mr. TIERNEY. Thank you. Mr. Chairman, you mentioned earlier that the environmental regulation were causing high energy prices. And to support your position you thought that the complaints from oil companies and others that were being raised by the cost of complying with environmental regulation. I think we have had a little experience, though, that the industry has been known to overstate the cost of complying with environmental regulations in the past.

One example of that is when we were considering the Clean Air Act of 1990, industry after industry came before Congress and said that the cost that the law would virtually bankrupt the economy. Of course, nothing like that happened. As another example, Mr. Simon, you represent ExxonMobil. When the Congress was considering the reformulated gasoline provisions of the Clean Air Act, Mobil wrote to the Congress that the requirements shouldn't be adopted because, and I quote: The technology to meet these standards simply does not exist today. That proved to be completely wrong.

The reformulated gasoline provisions went into effect in 1995, and have brought some pretty good benefits for clean air.

There are other examples. The utility industry grossly exaggerated the cost of acid rain provisions. The chemical industry said that phasing out CFCs would cause massive disruptions. The auto industry said that they couldn't meet the new tailpipe standards, yet each of those statements was proven wrong.

The industry sometimes can remind us of the person that cries wolf. Why should we give any credence to the complaints about the Clean Air Act that have been made today? Any of you gentlemen want to address that?

Mr. SLAUGHTER. Mr. Tierney, I would like to say one thing. It is very difficult to estimate the cost of some of these programs, particularly across an entire industry and important products such as we are talking about. Just this summer in the midwestern gasoline

crisis, the industry was criticized for underestimating the costs of the reformulated gasoline program. The fact is that it's difficult to see, but there are a number of situations that came together that we had indicated might come together, and it took a long time for them to happen, but with the introduction of the new product this summer, they did, and at that time. We were criticized basically that our numbers were too low.

So it is difficult to get them right, but we do our best. And sometimes the situations that we feel may occur don't occur, sometimes it takes them awhile. But, you know, this summer at least we had some serious repercussions from the Clean Air Act and the reformulated gasoline program, and at that particular point, it seems that our numbers were too low.

Mr. BURTON. The gentleman's 10 minutes have expired. Let me yield to Mr. Souder and ask if he will give me 30 seconds.

Mr. SOUDER. I had been happy to yield to the chairman.

Mr. BURTON. Let me just say, Mr. Tierney has the impression that I'm not concerned about the environment. I think the reason, one of the main reasons that I wanted to hold these hearings was to point out that we don't have a really long-term energy policy that's been well thought out. Obviously, you know, I think you're going to see some changes. You already see, I think, Honda making a hybrid engine, a part electric and part internal combustion engine, and I think you are going to see other industries, other car companies, and so you are going to see us heading in the direction that you want to.

But in order to do that in a way that's constant and reasonable, it seems to me that we have to have a long-term energy policy. We don't have that. The administration, I believe, should have led in this direction, and they have not. And that's one of the reasons we are having—this is to not point fingers at the administration or at Congress, but to say that we've got to have a policy. But that begs the question of do we have a short-term energy policy to deal with the crisis we are going to have this winter? I mean this winter, we are going to have spikes in energy prices in the northeast, in the west, all over this country. And so we have to look at not only the long-term program and come up with an energy policy, but we also have to deal with what is real today, and that is, a lot of people are going to be suffering this winter because we did not take a hard look at this earlier.

Mr. TIERNEY. Well, just if I might, Mr. Chairman, I hope that this is an indication that the majority party is going to start funding the projects that the administration has had for its long-term policy that you have been cutting each one of the last 5 years, and you are going to get off the concept of cutting the Department of Energy, because that will go a long way helping us on the long-range policies. Thank you.

Mr. BURTON. Yes, sir, Mr. Tierney. I won't get into a big debate about that. We will get into that some other time.

Mr. SOUDER. I have a series of questions, but I want to ask Mr. Simon a followup on this exploratory budget question.

If I understood what you were saying correctly, you said that one of the benefits of the consolidation was you were able to reduce your exploratory budget. And I guess a fundamental question is

you pointed out that your market price and your profitability as a company is a lot based on your return on investment.

If you saw that additional drilling and production would be profitable but would reduce the return on investment, would you not produce? In other words, it is a lower level of profit than you already had.

Mr. SIMON. Well, we've got profit targets that we have in making our investment decisions. And if that met an investment target that we had, we would go ahead with it. Certainly.

Mr. SOUDER. Because, well that's a logical business decision. You can see why many Americans, including me, are very concerned about consolidations. Because what we are in effect saying as we move to an oligopolistic situation where fewer and fewer people control production, that when we then have price run-ups because production is short, that people aren't willing to drill, even though they can make money, but they don't hit their target of how much money they wanted to make, we have put ourselves in a very awkward situation.

And as someone who is very pro capitalist and very pro not having government overregulate, we are going to have to look at this question of return investment and acceptable levels of profitability, or you are going to wind up getting the same thing that happened to Standard Oil the first time around because we cannot tolerate not developing energy resources that potentially can be developed at a profit.

Mr. SIMON. And if I gave that impression, that is not the case. Those energy opportunities that we have that meet our hurdle rate, we are pursuing those. But one of the advantages, I think that our chairman pointed out at the time of the merger, is that we're able to look at our portfolio, to high grade that, to end up with opportunities where you can do things more efficiently, more effectively, can combine technologies now that we did not have before. And really, get more bang for the buck. So to do the same thing that we would have done before, we should be able to do more efficiently, more effectively, pursuing the same opportunities that we would have pursued before but at lower costs. And I think that ultimately ends up benefiting the consumer.

Mr. SOUDER. It is important for the record to show that you, once again, said your hurdle or your mark. And earlier when you compared yourself to the Standard & Poors index on your rate of return over 5 years, you said it was slightly below.

Mr. SIMON. Over a 10-year period, that's correct.

Mr. SOUDER. So you do have a rate of return goal and a profit goal. That is not just that you made profit, which is understandable, but becomes more of an obligation when you are in a highly regulated industry where, in fact, not developing every opportunity, regardless of where the rate of return, if there is a profit, becomes more of a public policy question. I don't want—if you want to make another—

Mr. SIMON. Yeah, I'm not in a position, obviously, nor would I want to share what our DCF—

Mr. SOUDER. Compared to the Standard & Poors.

Mr. SIMON [continuing]. In terms of our investment position what our DCF return criteria would be.

Mr. SOUDER. The company wouldn't want to fall below the Standard & Poors. You used that as a marker.

Mr. SIMON. That is a return on investment. And you can have different DCF return criteria, you know, versus what you would have on an ongoing return on investment. However, I guess what I'm saying is if you take the same criteria that we had before and apply it now, but with the combined technologies and our ability to get more bang for the buck than what we were capable of doing before, pursuing the same opportunities with the same hurdle rate, we are able to do that for less.

Mr. SOUDER. Mr. Slaughter, one of the things that it looks to me like, one of the choke points is in the refining area. Have you seen refiners go out of business? Their profits are down. Are they showing a different profit rate than other areas of the industry?

Mr. SLAUGHTER. As I mentioned, Mr. Souder, the average rate of return for the refiners for the last 10 years is about 5 percent. The fact of the matter that the aggregate profit numbers that are used for the quote, unquote, oil industry for this year, of course, include other sectors. Refiners are making—are profitable, generally this year. That's somewhat of a rarity. There are a number of our members, for instance, our smaller members, who have not been profitable over the last several years. So this year has been one opportunity to make some money for them to stay in business.

On the average, over the last several years, roughly two refineries a year have gone out of business. They tend to be of different sizes. And as I pointed out earlier, there has been some ability to increase capacity at existing sites so that we can keep even with the refining capacity. But the problem is, as you know, the demand for petroleum products is increasing. So just by keeping even, in effect we fall behind. So, yes, it is a relatively good year for refiners. Not astronomical. There are no astronomical years for refiners.

Mr. SOUDER. Mr. Simon, if you take Exxon and Mobil together, is your domestic refining capacity greater or less than a year ago, and how many have you closed?

Mr. SIMON. I will have to get back to you, Congressman, exactly in terms of the two companies and where we were 2 years ago. I don't have that information. But I would speculate that our refining capacity is at least equal to or perhaps more. And what we have been able to do over a period of time is to, with new technologies, and application thereof, is to expand the ability to refine products with existing equipment. And I think that's been a very important aspect, and what Mr. Slaughter is saying here in terms of how we can meet increased demand with existing refineries.

Mr. SOUDER. You feel you have the continuing ability to do that or you're suggesting, in other words, you have maxed out in your ability to redo existing refineries? I think Mr. Slaughter also suggested that some of those were being revisited as to whether or not those were going to be allowed to stand.

Mr. SIMON. And that latter point is a very important one. I do think that there is going to be additional, what we call creep in industry, as you discover and apply new technologies. We are continuing to find ways to get more and more out of existing equipment. But some of that grandfather equipment, as it has been called, we were operating under one set of rules and regulations to

go back down, and retroactively apply new source review requirements to those can certainly impede that process, and it is something we in industry are very much concerned about.

Mr. SOUDER. Do you expect to build any new ones, or at this point, are you—let's say that the demands are still there, you have to revisit, in fact, you may have to actually reduce some of the capacity gains that you had. Do you have any plans to build any new refineries?

Mr. SIMON. No, we do not. What we are focussing on again is how do you get more out of existing equipment? And we are very concerned about anything that would impede that process.

Mr. SOUDER. Why wouldn't you look at any new refineries?

Mr. SIMON. Well, one factor is, I think we are able to meet demand requirements by getting more and more out of our existing equipment, and by adding new equipment from time to time to existing facilities as opposed to going into a new one.

Now, certainly the permitting process and all the problems associated with that, I would think would make any company think two or three times before even thinking about putting in a new refinery.

Mr. SOUDER. Are your refinery operations similar to the national average at 5 percent compared to your other, that would be substantially under other ExxonMobil operations, and would that be a factor in whether or not you build additional refineries?

Mr. SIMON. Certainly the return levels in refining—and I'm not going to say what ours is, but in terms of the return levels in refining certainly limits what you're able to do in terms of investment, not only certainly in new ones or thinking about that, but even in existing refineries.

Mr. SOUDER. Thank you.

Mr. BURTON. The gentleman's time has expired. Mr. Waxman.

Mr. WAXMAN. Thank you, Mr. Chairman. One of the biggest environmental and energy problems we face is global warming. According to the National Academy of Sciences, worldwide temperature increases are, quote, undoubtedly real, and the intergovernmental panel on climate change indicates that there is now reason to believe it is human induced.

I have been very pleased to see that many major U.S. corporations are beginning to recognize the threat posed by global warming. For example, over two dozen companies, many Fortune 500 companies, have joined the Pew Center's business environmental leadership council in order to help find solutions to climate change.

Unfortunately, ExxonMobil isn't one of these companies. Contrary to the world's scientists, ExxonMobil has taken the point of view that there is insufficient scientific evidence to believe that climate change is real.

Mr. Simon, why is ExxonMobil taking this head-in-the-sand approach to global warming? Why isn't your company joining with British Petroleum, Sunoco and Shell to help find solutions to global climate change?

Mr. SIMON. Congressman, although there are a number of scientists that have that opinion, there are an equal number of scientists who have a different opinion as well. We are not saying it is not a problem. We are saying let's take the time to study it, to

understand whether it is or not before we take dramatic steps. And in the meantime, we are saying let's take those kind of steps which make sense, but are "no regrets" kind of steps, so where we do something, it doesn't end up being in the wrong direction, it is consistent with where we ought to be going anyway. And energy conservation is one of those.

Mr. WAXMAN. Mr. Hawkins, do you have any thoughts on this subject?

Mr. HAWKINS. I would only comment that given what Mr. Simon said before, because of the dynamics of the business, energy efficiency may be a "no regrets" step, but for ExxonMobil to put money into it it has got to meet their hurdle rate, which is what Congressman Souder was pointing out. That is a problem. We have encountered that with other companies where something that they can actually make money on and reduce pollution doesn't get done, not because they're bad people, but because that investment can earn more money somewhere else. And that's the dynamic of the system.

So that's what we need policy for. We need to have targets and incentives that change behavior that otherwise would flow from the hurdle rate decisionmaking that Mr. Simon described.

Mr. SIMON. Congressman, may I add to that, too? I would like to point out, because I think this is where we are consistent with one another, that we are pursuing very aggressively energy reduction steps within our own facilities. And, yes, we don't do that unless it's attractive and makes money to do it. That's true. We don't do it just for the sake of doing it. But we have a hurdle rate for those kind of projects that, as low as anything else, that we are doing in our company. So that's an area where I do think we're taking an aggressive approach, and there is a "no regrets" approach and consistent with addressing the issue that you are talking about, if indeed it ends up after further study being substantiated, that it is, indeed, the problem that we think.

Mr. WAXMAN. I guess British Petroleum, Sunoco and Shell think there is a reason to do more than ExxonMobil. And while you continue to want to have it studied, they feel they have enough information to move forward. Is that a fair statement?

Mr. SIMON. Yes, and that wouldn't be the only area where we might disagree as competitors, Congressman. There is a number of them where we don't agree on.

Mr. WAXMAN. The only problem with environmental legislation is that unless we require everybody to do something, it's not profitable to spend that extra money to reduce pollution or reduce emissions of any sort. So you put yourself in a competitive disadvantage if you are the one trying to reduce pollution. That's why Mr. Hawkins would say you need policy decided by government and applied in an equal way on everyone.

Let me go on to another subject, and that is reformulated gasoline. Earlier this year the price of clean burning gasoline, known as reformulated gasoline [RFG], rose in the Midwest at a rate significantly higher than the rate of gasoline price increases in the other areas of the country. RFG prices in Milwaukee and Chicago were, at times, 50 cents higher than the price of RFG gas in other parts of the country. At the same time, some were suggesting that

the Clean Air Act regulations played a major role in these increases.

Mr. Simon do you believe that the Clean Air Act regulations played a major role in the RFG price increases that Chicago and Milwaukee experienced a few months ago.

Mr. SIMON. I think it certainly did have a factor in that, Congressman. When you look—and Mr. Slaughter mentioned it a while ago. Certainly we did go into a new production of reformulated gasoline phase 2 during that period. That was more difficult to produce. You're able to produce less out of a barrel of crude. It required new equipment, new investment that took time to start it up. That investment had a higher cost as well.

Now in the two particular areas that you're talking about, reformulated gasoline in those two areas are made with ethanol. Now, because of the supply shortages which occurred, because we went into a period where we had low inventories, as I mentioned before, we had to put in new equipment. It took time to start that up and learn how to operate it. We came out of an extraordinarily cold snap at the end of the winter. So again we hadn't converted over to gasoline production to a major extent. There were also pipeline problems in the area which contributed. Also, there was the uncertainty around Unical patents which affected this. But all of those affected reformulated gasoline in general.

Mr. WAXMAN. Exclusively in those two areas or everywhere?

Mr. SIMON. In the Midwest. Now what happened in those two areas, however, was that there the reformulated gasoline is made with ethanol. The problem we had was how do you get products or supplies from other parts to go in to make up for this shortage of supplies in that area?

Mr. WAXMAN. Well, let me ask you this question, because there's evidence that indicates that it wasn't environmental regulations at all that caused the Midwest gasoline price spikes. At a June 29th committee hearing, EPA Administrator Carol Browner testified that the cost of producing RFG could not account for the high price differentials in the Midwest. She stated that independent analysts had found that the cost of producing RFG costs only between 4 to 8 cents per gallon more than conventional gasoline.

She also testified that after June 12th and 13th meeting between EPA, DOE and oil suppliers in Chicago and Milwaukee region, and then the June 15th announcement that EPA and DOE were going to ask the Federal Trade Commission to investigate the price of RFG in that region, suddenly the wholesale price for RFG in that region dropped over 38 cents per gallon.

ExxonMobil is involved with supplying gasoline to the Chicago and Milwaukee area, I presume, isn't it? And why did the wholesale prices for RFG drop so dramatically in Chicago and Milwaukee in the days following the announcement that the Federal Trade Commission was going to investigate whether price gouging was occurring in that region?

Mr. SIMON. Let's first of all discuss why they went up. And those were the factors that I just mentioned and ticked off. It is not a cost-based system. That's not what established the price. It was a market established price that cleared demand and supply. So it was the market forces that drove the price.

What changed the price was getting additional supplies into that area. We took steps before any mention was made of any kind of FTC investigation, and let me mention what those were. In our Baton Rouge refinery in the Gulf Coast, what we were able to do is to produce the same kind of components that are required to blend with ethanol in the Midwest. That's a very difficult thing to do, because we are not tooled up in our other refineries to do this. We were not tooled up to produce those same components in other refineries in the circuit.

But after taking extraordinary steps in Baton Rouge, we were able to get more supplies into the Midwest to address the supply problem.

That decision was made well in advance of any kind of investigation or any mention thereof. It takes about 20 days round trip to make that. The supplies got in there about the time that that was mentioned. We also worked to improve the production or producibility of that grade in our Joliet refinery. We put all of our technical expertise in there.

Mr. WAXMAN. If I could interrupt you, it sounds to me like what you are saying is that it wasn't the cost of producing the reformulated gasoline; it was the cost of trying to get in the position of doing it and getting that supply there. That is contrary to me to the argument that it was the environmental requirement of producing RFG that caused that price spike. And it's just curious to have that timing right at the same time the Federal Trade Commission was going to investigate.

Now the Federal Trade Commission is going to investigate and we'll find out from their analysis what caused the Midwest gasoline price volatility. I hope the FTC is able to shed light on that situation. I think a lot of people would be really concerned if the price was artificially high, and just because there was suddenly going to be scrutiny on why it was high, it suddenly dropped. But, given your explanation, it wasn't the cost of the RFG, it was the transportation and the infrastructure to get that supply to the people in the Midwest that you ironed out to get that lower reduction.

Mr. SIMON. No, what happened, Congressman, was that when we had to produce this new grade, we had to put in new equipment at our Joliet refinery, specifically designed to produce the kind of components you could then blend ethanol into to make the reformulated gasoline. One of the issues we had, and others in industry as well, is when you tried to startup that new equipment, we had problems, technical problems on how you get lined out, it took time to do that. That was a contributing factor.

So I'm saying the regulations from that standpoint was a contributing factor to the supply problem issue that we had. There were others, I admit. The pipeline problems that we had. The fact that we were at low inventory levels coming out of winter. All of those were factors as well. But the reformulated gasoline was a factor in that. We were not tooled up to do that in the Gulf Coast.

Mr. WAXMAN. I appreciate what you're saying, I just want to ask Mr. Hawkins if he has anything to say on this.

Mr. HAWKINS. Just one comment on this. To hear the testimony, you would think that this requirement was a surprise. But it wasn't. I mean, this rule was adopted half a dozen years before the

June 2000 date. It was the product of a negotiated rulemaking. It provided lots of flexibility. The program was on the books. The ethanol use in the Midwest was on the books.

The most charitable thing you can say is they screwed up. They were running this thing too tight. They did not prepare far enough in advance. This is not a policy failure. This was a market failure. It was a glitch, and when—and as Mr. Simon has testified, essentially it was a supply demand thing. It wasn't a cost-driven thing. The market would bear a higher price, it did not bear it for very long, and when people got upset, they figured out a way to react and get the price back down.

But the price was not a function of cost. It was a function of what the market would bear until it wouldn't bear it anymore. But the more interesting point is this requirement was not a surprise. This was one of the better regulatory programs because it was worked out through a regulatory negotiation. It has lots of flexibility. The trading of obligations, all the market-based principles. So, you know, that, I think, is the unfortunate observation about this glitch.

Mr. SIMON. But again, I would go back to what came out of the NPC study, and one of the facts pointed out there was that when you have these different kind of fuel requirements, and you have sort of a boutique approach or a Balkanized approach so that different parts of the country have different requirements, what happens when you get into a supply shortage or disruption like we got there, you cannot just move supplies in from another part of the country to meet that. It takes longer to make those adjustments.

Yes, we did have problems in starting up some of this equipment, and that is another thing that came out of the NPC study is when you put more and more stringent requirements upon us, requiring more and more capabilities out of the equipment in our refineries, we are going to have more difficulties in doing that. We are going to have problems. And the more stringent those are and the more difficult they are to produce, the more these kinds of issues and problems we can expect to have in the future. That's why we've said that it's very, very important that when we look at these regulations, that we look at the cost-benefit of those and be sure that we take into account when you do that, it can result in some of these kind of situations.

Mr. BURTON. The gentleman's time has expired.

Mr. Ose.

Mr. OSE. Thank you, Mr. Chairman. Are we going to have another round of questions?

Mr. BURTON. What's that, sir?

Mr. OSE. Are we going to have another round of questions?

Mr. BURTON. If you desire.

Mr. OSE. Well I'm just not quite sure where to start, I have so many here.

Mr. BURTON. Mr. Ose, being the fellow that you are and the friend of mine, I'm going to give you all the time you want.

Mr. OSE. Mr. Simon, as I understand it, ExxonMobil operates in an investment climate regulated by the SEC. Is that not correct? In effect, your shareholders would go to the SEC if ExxonMobil did something inappropriate in terms of shareholder interests?

Mr. SIMON. I would presume so.

Mr. OSE. Is the allocation of capital in pursuit of profitable investment by ExxonMobil one of those areas that the SEC would look at in terms of a shareholder suit?

Mr. SIMON. I wouldn't think so, Congressman.

Mr. OSE. So if I owned stock in ExxonMobil and you took ExxonMobil capital, and you invested in production where you did not make a profit and I sued you, the SEC wouldn't be interested in that?

Mr. SIMON. I really couldn't respond to that. But I think if we did those kinds of situations, the shareholders would vote with their feet and we wouldn't end up with those shareholders. They would sell out and go somewhere else.

Mr. OSE. So all the various pension fund investments and IRAs and 401(k)'s that have a little pieces of ExxonMobil in their portfolio might very well suffer a loss if you did not allocate your capital efficiently?

Mr. SIMON. I think if we did not allocate our capital efficiently and perform well within our industry as we have done, that we wouldn't end up with the shareholders that we have and it would certainly impact our stock price.

Mr. OSE. Now I've heard a lot of talk today that ExxonMobil has earned a whole bunch of money. Now, if I understand correctly, you earned \$4 billion.

Mr. SIMON. \$4.53 to be exact.

Mr. OSE. What is your total amount of assets?

Mr. SIMON. Well, that—

Mr. OSE. Well, is it \$1 billion.

Mr. SIMON. About a 13 percent return on investment.

Mr. OSE. Say around \$35 billion in assets?

Mr. SIMON. I'd have to get back to you on the exact number, Congressman.

Mr. OSE. My point is that 13 percent on equity is less than say State Street Bank, based in Mr. Tierney's district and—or Wells Fargo Bank, now based in Minnesota, but used to be based in L.A. on their equity, just seems kind of silly to me to look at the absolute number rather than the return on equity. Because, I mean, you can really twist the spin, so to speak.

And I just wanted to make that point, Mr. Chairman, is that when you talk about absolute numbers, you need to understand what it is that is generating those numbers. You can't just say, well, Exxon because it is making 4-point-whatever billion, is making too much. You have to look at—I mean, it may be they are making too little. If they are \$100 billion of assets and they are only making 4.4 percent, I'm going to take money out of their stock and put it in the bank because I can get 6 percent there.

I just want to make that clear, because oftentimes those of us who have the privilege of serving here, and I have to be clear, I mean I'm not very far removed from having to allocate capital for profitable purpose, a year and a half. Those of us who have the privilege of serving here kind of lose touch with what the reality is, and the reality is that ExxonMobil has not only fiduciary, but statutory requirements for how you use your capital, otherwise, you

are going to be subjected to shareholder suits if you misuse or abuse that responsibility. And I just wanted to make that clear.

Mr. SIMON. And that's a very good point, Congressman. I guess we are more concerned frankly than shareholder suits in that regard, is being sure that we perform well relative to our competition in our industry, because, as you point out, if you look at our industry and you compare it with Standard & Poors over the last 10 years, it is actually a little bit below.

Mr. OSE. You are below. Let me ask another question. A lot of times one of the things that large corporate America has to deal with is the amount of capital tied up in inventory. That is a drag on return. Much of corporate America has kind of reversed the traditional supply demand analysis for delivering product to the market and now actually look at it in terms of demand-supply dynamics. So supply demand dynamic versus demand-supply. In other words, figure out your demand, and rather than tie up a huge amount capital in inventory, you funnel your supply accordingly, so you don't have a bunch of gas sticking in some tank somewhere.

Mr. SIMON. I understand. Right.

Mr. OSE. It's something that's relatively recent in the financial markets, and maybe some of the people here don't understand how it works. But it has a direct bearing on the ability of millions of Americans to enjoy a successful portfolio, because it increases the rate of return that those people get on their investments, increases the value of their portfolios and allows them ultimately, when they retire, to have a higher level of retirement security.

Mr. BURTON. If the gentleman would yield, I hope you are not talking to me. I hope I understand what you are talking about.

Mr. OSE. I'm talking to Dennis.

Mr. BURTON. I understand. I understand.

Mr. OSE. You made me lose my train of thought, Mr. Chairman.

Mr. Simon I've got a couple more questions. Refinery capacity in the United States—domestic refinery capacity in the United States in 1983 I'm told is 16.46 million barrels a day. I think that is Mr. Slaughter's testimony, written testimony. And domestic refining capacity in—domestic U.S. refinery capacity in the year 2000 is 16.3 million barrels a day; is that correct? So we have had no increase in refining capacity in 17 years. In fact, we have had a decrease; is that correct?

Mr. SLAUGHTER. That's right.

Mr. OSE. Now, as a businessperson, if we have a decrease in supply, what happens to price?

Mr. SIMON. If you have a decrease in supply, the price goes up.

Mr. OSE. Thank you. I've returned from Alice in Wonderland. Thank you. Now, the energy business, particularly as it relates to gasoline, serves product into different markets. For instance, in my area, Sacramento, the Central Valley, we have a nonattainment zone. We have certain specifications. Mr. Slaughter, I'm coming at you. We have certain fuel specifications that we have to meet, and those are different specifications than exist in, say, Las Vegas, NV, or name a city in Idaho or whatever. So we—Boise, thank you. I want to go back to the points that you made about how did you respond to the Chicago dislocation in the market. If I understand you correctly, and you aren't communicating this very well, but I want

to make sure I understood you correctly—the refinery that you relied on in Louisiana to bring the additional supply up the Mississippi River, if you will, to Chicago, was originally outfitted to produce fuel for a different market?

Mr. SIMON. That's correct.

Mr. OSE. And it took X number of days to change the manufacturing process, the cracking the petroleum.

Mr. SIMON. You're absolutely right.

Mr. OSE. So that you could then produce fuel that met the attainment, the ozone attainment requirement for Chicago.

Mr. SIMON. That's correct.

Mr. OSE. That is an environmental requirement, is it not?

Mr. SIMON. It is indeed.

Mr. OSE. So it is directly related to the environmental requirements that you referenced in your testimony?

Mr. SIMON. That's correct.

Mr. OSE. All right. The issue of whether or not Carol Browner or some other Federal agency was direct cause of a reduction in the retail price of fuel, I have to tell you, I find that a stretch. Especially given your testimony that ExxonMobil, in particular, had actually moved to change the manufacturing process in Louisiana to provide the supply that would allow the Chicago retail market to come down.

Mr. SIMON. That's absolutely right, and I would add to that, Congressman, we also, in our Joliet refinery, we put every bit of technical expertise that we had in there to try to increase the supply of that product. That was well before any mention of any investigation was made, in addition to the steps that we initiated in Baton Rouge refinery as well.

Mr. OSE. Mr. Simon, I'm from California, so I don't know the Midwest market very well, but I will tell you for debate's sake I don't believe you. How do you prove that? Do you have documentation that you can share with this committee, either notification to Louisiana to get on with the work or inspections of the work that was ongoing in Louisiana, or something to put to rest this idea that Carol Browner saying that she was going to ask for an investigation was the cause of the decline in the price of fuel in the retail market in Chicago?

Mr. SIMON. Well, certainly we could go back and show the FTC, for example, the steps that we had initiated in Baton Rouge and the timing of those. And I would also add that we worked very closely with the FTC on their investigation. We welcomed that investigation. We provided them with all the documents that they've requested, and we want to work with them in any way we can because we've got nothing to hide on this. We are very anxious to have the investigation. We are very anxious to have that completed. And we would hope it gets the same kind of publicity when it is completed that it got when it was initiated.

Mr. OSE. You know, I'm not ordinarily given to strong terms, but I am a year and a half removed from having to run a business. And business owners respond to market dynamics. And in this case, it is clear to me on the basis of your testimony here that Exxon responded to a market dynamic, notwithstanding Secretary Browner's pronouncements later on.

Mr. SIMON. Absolutely. You heard Mr. Santa, and I tell you we feel the same way about it. Our end consumers and customers are the most important thing to us that we've got. That's the best asset that our corporation has. In contrast to trying to hold back or restrict supplies, we were doing everything we possibly could to increase supplies into that area.

Mr. OSE. Mr. Chairman, I'm going to—give back to you and let you go—

Mr. BURTON. We will give you more time in a second round. We will now yield to the gentleman from Cleveland.

Mr. KUCINICH. Thank you very much, Mr. Chairman. Question for Mr. Slaughter. I want to speak about the reformulated gasoline and the Unical patents, and I'm wondering your thoughts as to whether or not Unical, those patents for reformulated gasoline are partly to blame for rising gasoline prices?

Mr. SLAUGHTER. We'd have to say that we do, Congressman.

Mr. KUCINICH. That you do what?

Mr. SLAUGHTER. They do have something to do with price increases with cost increases. It's difficult to quantify. As you know, I know you have legislation on the subject of the patent. They essentially have patents which are being contested in the courts now. There are a series of patents. If they are upheld, they can have the impact of causing a substantial—substantial for gasoline profit margins—increase in the price of gasoline. They're essentially the product of a public policy process in California and elsewhere, but Unical, as you know, has gone forward to patent this. I should add that NPRA has filed an amicus brief against the patents and I should tell you that.

Mr. KUCINICH. I am aware of that, actually. Are you aware that the Attorney General can now order licensing of certain technologies for the attainment of clean air standards?

Mr. SLAUGHTER. Yes.

Mr. KUCINICH. And so how do you feel about a bill which—I introduced a bill which is called the Lower Gasoline Prices Through Technology Access Act of 2000. And the bill would allow the Attorney General to require a mandatory license for reformulated gas patents and still permit a reasonable profit. Several refiners have expressed interest in this solution that provides them with fair access to clean air technologies.

What's your position on taking that particular direction?

Mr. SLAUGHTER. Well, you know, preferentially, we believe that the patent was wrongly granted and we would like to see the patent struck down by the courts. As for the legislation, we are looking at that. And we haven't got an opinion on it at this time. I understand that there have been some discussions. Your staff's had discussions with some companies, but we have not taken a position on it. And I think that those of us who are involved in the litigation would like to see the outcome of the litigation.

Mr. KUCINICH. So when patents are not reasonably available, or no alternative exists and substantial competition is reduced, you know the Attorney General can determine that in order to bring about cleaner air, can ask the district court to order the licensing the patent. What we are trying to do is set the stage so she has the legal authority to do it, specifically with respect to reformulated

gas because the current technologies included in the law are stationary sources, hazardous pollutants, things like that.

Mr. SLAUGHTER. I wanted to commend you for introducing that legislation, because I think it has increased the attention to what is going on, and what the question is in the case of the patent. And we'd like to continue to talk with you and your staffer about it. But I don't believe that at least our association is ready as yet to endorse.

Mr. KUCINICH. I would like to go to Mr. Simon right now.

I represent a district in Ohio, Cleveland, and a few months ago when the price was going toward \$2 a gallon, meeting friends, neighbors, constituents at the gas pump, people were very concerned, because as the price of gasoline starts to go up, for a lot of people it really does affect their quality of life, because America is so dependent on gasoline.

We say to those families—I worry that if the gas prices keep going up, it is going to cause them to change their whole standard of living.

What do you say to people?

Mr. SIMON. Again, a very large component of the price increase is the underlying crude cost required to produce the motor gasoline. We have talked already in this hearing about steps that we can take to try to address that; for example, making more acreage available to drill, and more access, to the point where we can reduce our dependence on foreign oil and become more self-sufficient, and have the ability to perhaps impact to a greater degree the price, the underlying cost of the product, the crude.

The other thing I would say, Congressman, is that it is a very, very competitive market. We and our competition must take every step we can to try to lower the cost of product to our end consumer just in order to be able to stay in the business.

Mr. KUCINICH. Why do you have to charge so much for gasoline? I think a lot of people would like to know that. Why do you have to charge so much?

Mr. SIMON. In the case that you are talking about, the market establishes what the price is. The price is what is required to balance the supply and demand.

In the particular aspect that you are referring to, demand for supplies were short. They were short for the reasons that I pointed out earlier. It took a longer period of time to get more supplies in there to where the price became impacted then and we could lower it when we got more supplies, and it took the price down to a lower level that was then required to equate supply and demand.

Mr. KUCINICH. I am just wondering if there are any other instances in business where you do not keep your supply up so that you can make a profit because the demand is exceeding the supply?

Mr. SIMON. As I commented before, there is nothing more important to us—your constituents are our constituents. They are our consumers. There is nothing more important to us than that. That is the greatest asset I think our corporation has.

We feel a very strong obligation to supply our customers with supplies on a dependable, competitively priced basis.

Mr. KUCINICH. Did you ever sit around in our meetings and say, you know, I just think we are charging too much for this gasoline, because people can't afford it?

Mr. SIMON. Again, we don't establish independently what that price is, Congressman. We are in a free market environment. The free market establishes that price. What we feel an obligation to do is to provide our customers with reliable supplies on a competitively priced basis. We do everything we can to do that.

Mr. KUCINICH. It is possible that a free market could take the price over \$2 a gallon, to \$3 a gallon?

Mr. SIMON. When you see what happened in the Midwest this summer, that is exactly what happened.

Mr. KUCINICH. That being the case, is it possible that price controls are the only way that the average American family could be relieved from this—

Mr. SIMON. I think in the long term—

Mr. KUCINICH. This threat of a high price for gasoline?

Mr. SIMON. When you interfere with the free market system, it creates distortions, and in the long term it is to the detriment of the end consumer.

Just look at what happened here. I think the free market worked. Prices were high because supplies were short. We already talked about the steps that we took, the higher-cost steps, the more difficult steps we took to try to get more supplies into that region.

I think in a relatively short period of time, and I am not trying to minimize the pain the end consumer went through during that timeframe, but in a relatively short period of time when you look at what we did, we got additional supplies in there. The free market worked. It was allowed to work, it responded, and prices went down.

Mr. KUCINICH. Would it be said that a business that was anticipating what the market would be—because we are talking about summer here. People were getting ready to take their summer vacations. Everyone knows that during the summer there is a greater demand. We all know that. That is not a surprise, particularly in the Midwest. That is when people go on vacation.

So all of a sudden during the summer you are telling people there is not enough gasoline to go around, folks. Well, back home they are saying, wait a minute. You know we are going on vacation during the summer. How come you are hitting us now, telling us you don't have the gas and you are going to charge me more? People have trouble believing that, Mr. Simon.

Can you see from our point of view how people would say, hey, these guys are gouging us?

Mr. SIMON. I understand that. What happened in this particular case, again, we had some pipeline outages. Nobody could have predicted those. We again started up some new equipment in refineries required to meet this new grade of gasoline. It took time to get that lined out. We had not anticipated that.

But it is not surprising you are going to have those kinds of issues and problems. We had some refinery outages of industry that nobody had anticipated, so there are going to be situations and times when unforeseen circumstances occurred. If those had not oc-

curred, the supplies would have been in much better shape, but they occurred.

Mr. KUCINICH. But your production, as has been said in the Business Week article I mentioned in my opening remarks, and Mr. Tierney mentioned in the questioning, if the domestic production starts to go down, to cut down a little bit—

Mr. SIMON. Domestic production of crude oil?

Mr. KUCINICH. We are talking about the domestic production of your product here.

Say if it went down a bit, and what I am asking, we are targeting OPEC now as saying that it is holding on and not producing what they should, but in fact, OPEC apparently has stepped up production to the response of the administration, yet domestically, we are not seeing the same response.

Do you see any kind of responsibility to the American people that when there is a market problem, that you should kind of accelerate production so that the prices will not be so high?

Mr. SIMON. Let's just talk about one of the main topics of this committee, and that is the price of heating oil. What we have already covered today is that our refineries in the United States are operating at all-out capacity. We are maximizing our production of heating oil, so we are responding to that situation. I think our track record as an industry is pretty good in that regard. We are proud of our record in that regard. I think we do respond, and I think we respond well.

Do we have problems with gasoline—

Mr. KUCINICH. What about gasoline?

Mr. SIMON. In gasoline, again, we were in a situation where had we not had these disruptions, which were unforeseen, of pipelines, if our equipment had come up and operated perfectly, which was new equipment and you can foresee from time to time having those kinds of problems with new technology and new equipment that you startup—these are the kinds of things the NPC study and we have pointed out could occur, and you should expect to occur when you put in new regulations, and it takes time to be able to get there.

Mr. KUCINICH. One final question. I will make this very quick.

Can American consumers now expect to see the price of gasoline come down?

Mr. SIMON. I am not going to anticipate or project what the price of gasoline is going to do because that is a function of a number of factors, very importantly of which being crude oil. I have no idea. I cannot predict what the price of crude oil is going to do.

Mr. KUCINICH. Thank you.

Mr. BURTON. The gentleman's time has expired.

Mr. LaTourette.

Mr. LATOURETTE. Thank you, Mr. Chairman. I want to pick up where Mr. Waxman was a little while ago, if I could.

Mr. Hawkins, I know that the RFG 2 requirements are nothing new. I had them back at 5 years, you put them at 6. One of the reasons that I think this hearing is so important, and the chairman's call for a national energy policy is so important, is that maybe the oil companies engaged in bad judgment. Maybe there are some circumstances Mr. Simon has talked about.

But I think we get into a difficult time when you have St. Louis, MO, for instance, asking for a waiver of the RFG II requirements. They get it. Certainly the oil companies are aware that similar requests for waivers have been made by the legislature and Governor of Illinois, and the same thing in Wisconsin. Maybe they took a gamble that the EPA would issue a waiver and they lost.

Not to shortsheet the other difficulties they have described today, but perhaps we need to be consistent and not have a map like the Citgo map that looks like that old game of Risk that I used to play, where you have all the different colors of pieces.

Back in the days when I started to drive, you had high-test and regular. Now you have 26, 27 different blends of gasoline that a refiner may be responsible for, depending on where he or she is shipping throughout the country. So maybe the distribution problem is somewhat hampered by our regulatory scheme.

Mr. Simon, I want to get to you for a second, because I was disappointed in your responses to Mr. Ose, not that your responses were not good. But when Mr. Waxman was talking, you know, we had Ms. Browner here in June and she made that observation.

She specifically said, "I certainly think it is fair to note that on the date that the FTC . . ." which I think was the day after the administration's letter, which followed after our investigation into other letters, "prices did drop. That is a fact."

I noted at that hearing in June that Mr. Kucinich and I sent a letter 3 days before Ms. Browner's, and I was hoping, and he and I had caused the price of gasoline to fall in the Midwest, and we could take credit. People say, not to pussy-foot around it, ExxonMobil dropped its wholesale prices in June because you were scared of an FTC investigation.

Mr. SIMON. No, we did not. The price was established by market factors. It had nothing to do with the announcement of any investigation.

Mr. LATOURETTE. The FTC has issued its interim report, and I will read you a couple quotes, one from a member of this committee who is sadly not here at the moment, either.

The report says, "Staff is examining supply and inventory to determine if supply was manipulated by an agreement or understanding, such as that insufficient product was available to meet increased summer demands in the Midwest, and prices spiked as a result."

Mr. Tierney, who asked you some questions earlier, said at that June hearing, "If there is enough oil out there and they choose to keep their inventories down and then create more of a demand so they can jack up their prices, why should we, the government, share the blame with them?"

I guess rather directly, again, did ExxonMobil collude with other oil companies in June of this year, in the days leading up to the June 8 deadline for RFG II, to restrict supply to the Midwest to jack up your prices?

Mr. SIMON. Absolutely not. In fact, Congressman, as I said before, I think we took extraordinary steps to try to increase supplies, certainly not restrict them.

Mr. LATOURETTE. Those were sort of the softballs or beachball. Now I have something that is really making the blood boil of the folks in Cleveland, OH.

That is that on Labor Day, right before Labor Day, the crisis has come and gone, we weathered the storm, we heard about the pipeline, we heard about RFG 2. But there is a gas station on the corner by my district office, and on the Wednesday before Labor Day, gas was \$1.42. You have to remember, Ohio is not an RFG State. We did not have any new regulations.

On the Thursday before the people that Mr. Kucinich referred to, gas up the buggy to go away for Labor Day, it goes to \$1.69; the same gas, the same gas station, no deliveries.

When you talk to the gas station owners, here is what we are told, not only for what happened in June but also what happened on Labor Day: As supplies get short, the big companies such as yours, such as BP Amoco, have an obligation to keep faith with their company stations, that is, the ones that you operate. And so in the spot market you see a fluctuation between the price that you sell to your direct distributors, and the spot market has a discrepancy.

The Energy Information Administration indicated in June it was the highest they had seen in a while, about 21 cents-per-gallon difference between what a jobber could buy gas for as opposed to what you were supplying your company-owned station.

As a result, the guy that owns Joe's Gas Station buys gas at 21 cents a gallon higher, and he or she then has to pass that on. I understand that, because that is the cost to them of putting the gas in the hole to sell to me when I gas up the car.

Why, then, do the big boys, you included, have to take your price of gasoline to that exact same price, when that does not reflect what you were paying for gas or the cost that it would require you to sell for gas to maintain the profit margin that you have described with Mr. Ose and everybody else?

Aren't you making a business decision that if you can get away with an extra 20 cents a gallon because there is a discrepancy in the spot market, you are going to take the dough and run?

Mr. SIMON. Congressman, I would suggest that the price is established, again, by market mechanisms, market factors. The supply and demand is what drives that price. If we charged higher prices than our competition or higher prices than what the market would bear, we would lose customers. We would lose business. So we price competitively. That is what we do. That is what we strive to do. It is not a cost-plus business, it is a business that is driven by supply and demand, and there are market forces that establish that price.

Mr. LATOURETTE. Are you telling me that your company does not make a greater profit when there is a difference in the spot market between what you can supply gasoline to your ExxonMobil gas stations as opposed to the independents and jobbers who sell to the independents?

Mr. SIMON. We look at every segment of our business separately. The retail end of the business buys product from us in refining and supply, and that product goes either into a dealer operator or distributors or their own outlets, so they are the ones who then make

those decisions. They are the ones who want to be sure that we keep our customers supplied and supplied with prices competitively priced, so that they can, in turn, compete against other dealers and people in the same business segment.

Mr. LATOURETTE. Let me ask you this: Didn't the price spikes that we saw in the Midwest in June of this year amount to really millions of dollars more in profit for the oil companies?

Mr. SIMON. It added to profitability, it certainly did.

Mr. LATOURETTE. About 80 percent profits are up?

Mr. SIMON. I don't have a specific number in terms of what that would have been.

Mr. LATOURETTE. Again, I have heard the questions asked about Chicago and Milwaukee. I understand about the difficulties that occurred there.

Again, back in Ohio, we didn't have any new gasoline requirements, and the question that people asked is why did our gas go from \$1.50 to \$2.30 when there was no RFG 2 problem, you didn't have a Joliet problem, you didn't have a Louisiana problem.

Here is what people suspect. Tell me if I am wrong and dispute me of the notion. They suspect that you could take that gas up in pipeline or truck, however you wanted to get it out of Ohio, up to Chicago and sell it for \$2.30, as opposed to selling it for \$1.60 in Ohio.

Mr. SIMON. There is no question about the fact that as prices are high in one area versus another, and you can move supply from one area to another, that that is going to attract. That is how the free market works. That is how things get back into equilibrium.

Mr. LATOURETTE. Again, are you aware of any practice that is prevalent on your industry where on the Thursday before a summer weekend you just take the price up?

Mr. SIMON. No, I am not aware of any—I would have to look into the specific situation to which you are referring, but again, we price based upon what market pricing is, and that is the way we establish the prices in any given market.

Mr. LATOURETTE. What about in one of these four corner arrangements where you have a gas station on all four corners, and the guy across the street, say he is a BP station, he goes to \$1.80 and you are at \$1.60. What do you do? What does the ExxonMobil do on your southeast corner? Do you have a policy that covers that?

Mr. SIMON. No, we don't have a policy. We look at all the competitors in a given area. We look at what we feel to be the result if we raise or lower our prices in terms of volume that might be attracted or lost. We try to make independent profit decisions in each one of those cases.

It is done on a case-by-case basis. There is no general rule or general application of any kind of policy. It is trying to look at each situation and decide what is the right price in that particular market, and what would maximize the volume and the profitability. That is the kind of factors that go into that decision.

Mr. LATOURETTE. During our June hearing, some of our friends on the minority side of the aisle indicated that perhaps the oil companies' profits had increased 200 percent or 500 percent. That is not true. I think you said about 136 percent.

Mr. SIMON. 132 percent second quarter this year versus—

Mr. LATOURETTE. I had seen the published report that it was 117 percent. A little over 100 percent.

Mr. SIMON. That may have been the year to date, because we were up 108 percent in the first quarter and 132 percent in the second quarter, so it might have been half year this year versus half year last year you are referring to.

Mr. LATOURETTE. So it is not 200 or 500 percent as some people have claimed, but again, when people in Cleveland, OH that Congressman Kucinich and I represent, are paying \$1.90, \$2, nothing funny, nothing fancy is happening in Cleveland, OH, why should they not have been upset that you have been able to increase your profitability from last year over 100 percent?

Mr. SIMON. Again, when you look at the segment of the business we are talking about here, and that is the refining and marketing segment of the business, we are comparing against a very, very depressed period last year, so I think it could be very misleading comparing period to period. I think it is more appropriate to look at it over a longer term.

Mr. LATOURETTE. Your return on investment in this segment of your business is about 3½ percent this year, and it was about 7 last year, and about 7 this year, so you would like us to average those years and say that over the last 2 years, you have done about 4½, 5.

Mr. SIMON. What I am saying is that when you look at return levels, I think it is appropriate in our business, where it is very cyclical in nature, to average those over a longer period of time than to just look at quarter to quarter.

When you look at the percentage increase, and again, when we are talking about the percentage increase here, this is the company total profits, and you have to remember that last year was a depressed period relative to profitability for our company and the industry.

Mr. LATOURETTE. Last, with the chairman's indulgence, there are some people—and I understand the Explorer and the Wolverine pipeline, and I not only understand, I accept, unlike some of my colleagues.

But there is a sneaking suspicion that you all took advantage of a bad situation to make a ton of cash in June out of the pockets of people in the Midwest of this country. What do you say to them?

Mr. SIMON. Again, when you look at the downstream piece of our business and you look at the increase in crude costs that are underlying the products, we do have higher margins this year, but we have not fully recovered the amount that crude has gone up. So the profitability of the downstream segment of our business, again, when you look at the total part of our business, and it is below the Standard & Poor over a 10-year time period, and you look at the downstream business, it is even lower than that.

So when you look at the profitability, the return levels, and then you factor into that as well the tremendous amount of investment that we are going to have to be making over the next several years to meet these higher requirements from an environmental standpoint, I would suggest that the profits are certainly not exorbitant, by any means.

Mr. BURTON. The gentleman's time has expired.

Does the gentleman have one more question?

Mr. LATOURETTE. Just an observation. I guess the lesson is when something goofy happens in Chicago or Milwaukee next time, we should just plug up the pipelines, keep all the gas in Ohio, and sell it for \$1.60. Thank you very much.

Mr. BURTON. I yield to Mr. Ose, and maybe Mr. LaTourette has a few more. But I would ask, the Saudis increased production by 800,000 barrels a day just recently. You would think with that increase in production, there would be a corresponding decrease in the price of oil, at least in a relatively short period of time. Yet, shortly after that increase took place the price of oil went up.

Can you explain that?

Mr. SIMON. I cannot explain that, but I can say that there are other factors operating on price other than the physical availability of barrels. There is a lot of speculation going on in the market at the same time, and I think that is certainly having an impact on prices, as well.

Mr. BURTON. The thing is, it is very disconcerting to people who know they are going to get hit with higher fuel costs this winter when they see production increased, and at the same time, instead of a decrease, they see an increase in the cost of oil. It makes no sense to them, and quite frankly, I don't understand it, as well. Maybe Mr. Ose can explain that to me.

Mr. Ose.

Mr. OSE. Thank you, Mr. Chairman. I was listening to the other side and I looked at the agenda, and the title of today's hearing is "Potential Energy Crisis in the Winter of 2000." It jogged in my mind some of Mr. Slaughter's testimony on page 5 that I want to explore a little bit with you, if you would, please.

On page 5 of your testimony, you are talking about the new emission requirements that EPA is putting forward, particularly as it relates to on-road diesel fuel.

The question I have—I mean, in your testimony or your written testimony, your written statement, you say—I am synthesizing here—"this may very well compound the shortage of fuel in the near term and cause even greater price spikes."

Is that accurate?

Mr. SLAUGHTER. Yes, it is. You know, we have three major initiatives, basically, that the industry is working with at the same time. One is a mandated reduction in gasoline sulfur, which is a time rule that has to be implemented roughly by 2006. The proposed diesel rule, which was final, according to EPA, this December, will have to be implemented by March 2006. Plus, there will be whatever has to be done on a State or Federal level or MTBE—the MTBE issue.

Those have impacts on refining plans, and basically you have a 4-year planning period in which refiners will have to do things in order to have the fuel at those times. So they will have an immediate impact, of course not only on the psychology of refiners and the perception for refiners as to whether there is any chance that we are actually going to be reasonable about environmental policies any time in the future, but also on the requirement that refiners actually spend money to make plans to change the factories, to make these new fuels.

Given the permitting process that we are facing at EPA, it will have an immediate impact on the companies.

Mr. OSE. The interesting part of this, Mr. Chairman, is even under—you can pick your time line, but Mr. Slaughter, your testimony here says that “engine manufacturers,” the actual people who make the engines that will use the fuel, “have pointed out that the technology to achieve those emission reductions is not yet available and may well prove infeasible.”

Are they saying they cannot make an engine that will use this fuel?

Mr. SLAUGHTER. Yes.

Mr. OSE. I want to be clear. Are the engine manufacturers, the experts in the field, the guys whose livelihood—the men and women who work on the line whose livelihood is at stake, they are saying they cannot make an engine that will work on the fuel that EPA is requiring?

Mr. SLAUGHTER. Actually, the engine is driving the fuel, Congressman. What has happened is that EPA has chosen particularly difficult and unique requirements for engines in the 2007 time-frame, and then is saying this fuel is necessary to make these technologies work.

If you look at the comments of Cummins Engine, the largest manufacturer of engines, they say “we have no idea what technology it is going to take to come up with this kind of engine performance in 2007. It requires several different technologies which work together in ways they have never been known to do, and it has never been tried.”

Then, however, EPA is telling us that they know what the answer is, and that they know that those engines can be done and they know what fuel is necessary for those engines.

Mr. BURTON. If the gentleman will yield briefly, let me say that Cummins Engine Co. is in Indiana, and they are experts. They really know.

Mr. OSE. Mr. Chairman, obviously they don’t know what they are doing because EPA says—

Mr. BURTON. That is the point I wanted to make. If they have people over at EPA that know more about diesel engines than they do at Cummins, they had better get them down there, because they could sure use those engineers.

Mr. SLAUGHTER. Cummins make the point that they have been in business 80 years and don’t know how to do this, and they don’t quite understand how EPA does.

The same thing happens on the fuel side. If people could actually make the diesel sulfur that they are asking people to make, you frankly will end up with a 12 percent shortage. That is a national average. The study that was done indicates that the shortage in the Rocky Mountains is 37 percent of supply, and because it is a unique standard, the lowest in the world, there will be no availability of imports to make up for it.

Mr. OSE. Given the price—what is the phrase—the price flexibility, the relationship between supply and demand—

Mr. SIMON. Elasticity.

Mr. OSE. The price inelasticity or the price elasticity, whichever way you want to go, of fuel, if you have a 12 percent shortage, what sort of a price increase do you have?

Mr. SLAUGHTER. Well, judging from some of the questions we had, we instead would be asked how much it would cost us to make that, assuming that we could.

But as you know, if you haven't got enough of something, then essentially the price rises to whatever level it has to try to allocate supply and demand. I can tell you that the particular study which has been done by Charles River Associates indicates that the marginal cost of diesel under that scenario they believe is in the area of at least 15 cents more.

Mr. OSE. So the truckers who drive our freeways and who deliver goods to our houses and our factories and our schools and our stores would be basically asked to finance EPA's desire here to the tune of 15 cents a gallon more for fuel than they are paying at present?

Mr. SLAUGHTER. That is true. And since most of our goods and services are delivered using diesel, which is our prime commercial fuel, actually all of us would be paying for it.

Mr. OSE. What is the science behind this, behind EPA's—

Mr. SLAUGHTER. Just briefly, the difficulty is—first of all, the industry is 100 percent in agreement that sulfur needs to be reduced in fuels. It interferes with catalytic technologies.

Basically, the idea on diesel is to provide after-burners, which is a catalytic-related technology which scrubs the emissions. But the question, the EPA is basically pushing a type of after-burner technology which has never been known to work, and is the one particular technology which, to the extent that anyone has experience with it in the laboratory, is extremely sulfur sensitive.

So they have used that fact to drive sulfur levels—their level is 15 parts per million that they are proposing as a cap. The current standard is 500. The industry has recommended 50, which is a 90 percent reduction. EPA is insisting on taking us to 15. The distribution system cannot even deliver 15 ppm sulfur diesel because it has to go through the same pipes that carry other products with far higher sulfur levels.

So we don't know how we are going to do this, but this EPA is going to mandate that it happen by making this rule final by the end of the year, rather than looking into these problems.

Mr. OSE. So this is actual rulemaking that is underway and published in the Federal Register for comment?

Mr. SLAUGHTER. The comment period has gone final, and they wouldn't even give us extra time to supply comments. Several of the industry stakeholders have asked for additional time to comment, and we were not even given that. The only thing EPA has had to say is that they will not change the number, they will not change their timeframe, and it will be made final by the end of the year.

Mr. OSE. Mr. Chairman, I have two other items, if I may.

Mr. Hawkins, I am not adverse to your position about efficiency and conservation, but the empirical data is that we are doing far more today with the same amount of refined oil than we did in 1983, and we are still short. That is the empirical data today. We

had 16.4, something or another, million barrels a day of refinery capacity in 1983, and we have 16.3 million refinery capacity now, and we are short.

It just seems to me that while we focus on efficiency and conservation, we also have to find some way of increasing supply. I don't know how to reconcile the empirical data that says we are doing far more with the same amount with your observation earlier, and I think your exact words is that we cannot produce our way out of this problem. We obviously have to have more production.

Mr. HAWKINS. First, I think it is—on this refinery capacity point, I think it is important to say that the witnesses from the oil industry—I did not hear them say that prices would be lower if we had more domestic refining capacity than we currently have. I think they would have a tough time making that argument.

One of the largest factors in the price of gasoline or refined products is the price of crude oil. Crude oil is a global commodity. Having more refineries on shore in the United States is not going to affect the price of crude.

Mr. OSE. Would you argue that our economy is going to demand a certain level of fuel delivered to this country, whatever it is? Whatever the economy demands is going to be delivered here?

Mr. HAWKINS. The economy will demand an amount of fuel that is needed to meet the needs. How much fuel, that is, is going to be a function of technology and the way we use fuel and how efficiently we use fuel.

I said in my testimony, nobody goes out and hugs a barrel of oil because they like the feel of hugging a barrel of oil. They like what the—the services that the oil provides. If we can find a way of delivering those services with fewer barrels of oil, that is what we are saying should be our primary emphasis.

We have proven that it can work, but we haven't tapped the potential. We have much more tapping of the potential of supply than we have tapped the potential of demand reduction.

If you will indulge me just to comment on your questions on the diesel issue, the problem that Members of Congress have in evaluating the industry assertions about what the effects of some impending regulation is, it is a problem because the industry does not have a very good track record at predicting what the effects would be.

It is not because they are liars, it is part of the dynamic of the system. If you are out there evaluating an impending regulation, there is a tendency to be conservative. If you are working for a company and you are working and trying to cost out for your boss, well, what could be the possible outcome, there is a tendency to do a worst-case analysis. It tends to be a worst-case analysis because until the policy objective has been set down as a real world objective, you don't have the experience of having tried to mobilize the resources to figure out how to do it.

The reason that we have this litany of examples where the industry has predicted a price of x and the actual price from the rule has been much less than x , it is, again, not because they are liars, but because once the rule was adopted, all of a sudden people say, this is real. We have to figure out how to make it happen, and we

have to figure out how to make it happen at a much lower cost than we originally forecast because that is too expensive, and speaking out and doing it.

Mr. OSE. I think I can accept some of that.

Mr. BURTON. If the gentleman will yield, I would just like to make one comment. I cannot, for the life of me, foresee why Cummins Diesel would say they can reduce it by 90 percent and they cannot reduce it by 97 percent. Because if they say they can reduce it by 90 percent, then they can go ahead and do it the other 7 percent, if it is feasible. Why would they say 90 percent and not 97 percent unless they really believe that?

Mr. HAWKINS. Actually, Mr. Chairman, the 90 versus 97 is the refiners' argument. It has to do with the amount of sulfur taken out of the fuel. The engine—

Mr. BURTON. I think the engine company is saying they cannot make an engine that will function properly if you go to 97 percent.

Mr. HAWKINS. Actually, it is the opposite, Mr. Chairman.

Mr. BURTON. I don't think that is what I heard.

Mr. HAWKINS. The engine manufacturers are saying that the less sulfur in fuel, the better.

Mr. SLAUGHTER. The engine manufacturers, Mr. Chairman, basically are saying that they believe that new technologies, these new technologies, will require lower sulfur diesel fuel. However, they are saying the number that has been picked by EPA is driven by the technology that EPA is requiring in the engines. Cummins is saying that they do not know how to make the engines that EPA is saying are going to be needed—are going to require this ultra-low diesel sulfur gasoline.

Mr. BURTON. Correct me if I'm wrong, didn't Cummins say that they could meet the requirements by building an engine that would be 90 percent—

Mr. SLAUGHTER. No, sir. It is the oil industry, the refining industry—they have offered a 90 percent reduction in the current sulfur level.

Mr. BURTON. So the engine company has not said they cannot make an engine that would be 97 percent efficient, fuel efficient?

Mr. SLAUGHTER. They have not really put it in those terms. What Cummins has said is that the engine that will—basically what EPA has done is it has set an emission rate for certain engines. Cummins has said, we haven't the slightest idea how to do that, and in our history, in Cummins' history of entering into rulemakings, they have never gotten to this point in a rulemaking before where they simply did not know if they could do what EPA has asked them to do. They didn't know if it is technically feasible.

As a separate question, EPA has told people, not only do we know that these emission limits are right and that engines will be developed that can meet them, we also know those engines will require ultra-low sulfur diesel.

The parallel there is the insensitivity of the agency to the experts on both the fuel side and the engine side as to whether what they are requiring is feasible. It is not the numbers themselves.

Mr. BURTON. We will talk to Ms. Browner about that tomorrow. Mr. Ose.

Mr. OSE. In the interest of full disclosure, I know where Mr. Simon works and I understand Mr. Slaughter, and I certainly am familiar with where Mr. Hildebrand works. I just want to make, in the interest of full disclosure, public the disclosure statement from Mr. Hawkins, because I could almost surmise that there was some impugning of the motives behind the testimony.

I just want to make sure that we are all clear on who—where people get their livelihood. I specifically would like to enter into the record the witness's Truth in Testimony Disclosure as it relates to Mr. Hawkins, as the others have.

Mr. Hawkins, I don't quibble over where you come from, but I do know that you have a somewhat different perspective. I just want to make it clear that that exists.

Mr. BURTON. We will put that in the record.

Mr. OSE. I want to come to my friend, Mr. Hildebrand, finally.

Mr. BURTON. Are we about finished?

Mr. OSE. We are almost done.

Mr. BURTON. Very good.

Mr. OSE. Mr. Hildebrand works for Calpine, Mr. Chairman, and Calpine is a private entity using private capital to try and produce product delivered into a number of different electric markets, one of which is California, with a facility under construction in my district.

It is a large facility. It went through a long public review process, at the end of which we got a last-minute challenge from someone in San Francisco. So we had an environmental document, we had the board of supervisor, we had community testimony, experts on all sides, and then we had a 4-month delay, the result of which was that one person from 100 miles away came in and challenged the problem.

Mr. Hildebrand was far more gentle in his description of what happened, but that is the basic fact. To suggest that it was not subjected to public review out in the open is inaccurate. It was subject to public review, a lengthy series of hearings, and in fact, it is now under construction.

The point I want to discuss with Mr. Hildebrand is implicit in all of these arguments, as it relates to electricity, is that if we make more plants, then we have higher pollution, because the plants generate pollution. But in fact, and—I will ask you the question, Mr. Hildebrand—the plant that you are building in Sutter County, if you use x generation of megawatts in Sutter County versus x on existing plants somewhere else, what is the efficiency ratio, if you will, in terms of pollution output from the respective plants?

Mr. HILDEBRAND. As I alluded to earlier, the technological advances are dramatic. We are now capable of reducing nitrogen oxygen emissions, compared with the average fossil-fueled plant in operation today, nationwide by 97 percent. We can reduce sulfur dioxides by over 99 percent, CO₂ by over 50 percent. That is global warming.

The biggest issue we face when we try to site a power plant is just that, Congressman. The common thought in the public's eye is "power plant equals pollution." With these new, modern power

plants, just the opposite is true. We actually have a cleaning effect on the overall region's air.

For the Sutter power plant, as part of the overall record for that case upon which the decision was based by the California Energy Commission, formal evidentiary hearings, a very litigious process, we entered into evidence a study that was conducted for the Sutter power plant. It looked at the whole region, what power plants were in operation, what their heat rates were, their efficiencies, what their permit emissions rates were; with that plant in operation and with it out, what the net impact was of having a new single 600-megawatt power plant in Sutter County on the overall California regional economy and air pollution shed.

We were permitted 206 tons a year of nitrogen oxide emissions, but by being so efficient, we were turning off plants for much of the year in areas around us. The net benefit was a reduction in the region of over 2,400 tons of NOx emissions annually.

Mr. OSE. Mr. Hildebrand, was this all disclosed in the process through Sutter County? For instance, the environmental document, did it have it in it or not?

Mr. HILDEBRAND. That was entered as evidence in the final record. That was expert testimony.

I just want to touch real briefly, Congressman, on the economic benefits. By reducing the cost of power statewide, by having this lower cost project in the grid, the net impact in the first year of operation of the Sutter power plant was forecast to reduce the cost to California ratepayers by \$400 million in its first year of operation.

Mr. OSE. The reason I brought this up is that we had in the record what the positive, beneficial aspects to air quality were for the nitrous oxide and the like. Now, Calpine is required to get a PSD permit, prevention of significant deterioration.

Mr. HILDEBRAND. Correct.

Mr. OSE. That permit would allow them to construct the plant in the first place.

One of the challenges we ought to explore tomorrow, and I am hoping we do, is that EPA has spent the last 6 or 8 years trying to issue the rule under which PSDs can be put forward. They are updating the rule. They said in 1991 or 1992—they said in 1992 that they were going to issue a new rule. The new rule has not been issued yet.

The net result is that Calpine cannot build plants, or anybody else cannot build plants because they cannot get this permit. So in effect, EPA stands like Horatio at the bridge saying no, no, no, the net impact of which is we cannot reduce nitrous oxide in our air quality.

Is that a—

Mr. HILDEBRAND. That is an accurate assessment.

Mr. OSE. Mr. Hawkins disagrees with you.

Mr. HAWKINS. The PSD rules have been on the books since 1980. They are in effect. The agency in 1992 began a process to look at ways to both streamline the existing rules and improve the environmental performance of those rules. That has been a stakeholder process that has been going on.

There have been a number of occasions when the agency was prepared to go forward with a change to the rule and the industry objected to it. That is not preventing the permitting of facilities under the existing rules. Those rules are going forward, and in fact, it is the rare facility that actually has to get a Federal PSD permit. Most facilities are able to either net out a review or avoid a Federal new source review and instead go through a State permitting process. Certain large facilities do, of course, have to get a PSD permit.

But the environmental community has supported and urged the prompt issuance of these rules. The problem is that, in my view, there are many in the business community that do not like the outcome of an improved environmental performance.

Mr. OSE. The business community does not like the outcome of an improved environmental performance?

Mr. HAWKINS. Because it places more obligations on them. That is their fear.

Mr. OSE. That is a broad brush, Mr. Hawkins.

Mr. HAWKINS. I am reacting to the reactions that the business community participants in this process have provided. They have opposed the issuance of the draft regulations that the agency had publicized for release and for publication. They objected to the fact that one of the changes in the rules was that Federal land managers who were charged with protecting air quality in national parks and wilderness areas would be given an opportunity to participate in the permitting process more effectively than they currently can, because obviously you don't build a power plant in a national park, but you do build them near national parks, and the problem is that those national park air quality readings have been degraded as a result of the inability of the Federal land manager to get the State permitting agency to pay attention.

So the agency proposed rules that would allow the Federal land manager to be notified of these projects and to have an opportunity to submit comments on the record that would not bind the State agency, but the State agency would have to consider them.

The industry did not like those, and that has been one of the reasons that they have been opposing this. There are other reasons, as well. But this is not the agency just sitting on its hands deciding that it won't issue a rule. It has been trying to come up with a rule that will both improve environmental performance and streamline the process. The difficulty is that people have not felt enough of a need to come together and agree on a set of rules that everybody will say, yes, that works for me.

Mr. BURTON. Mr. Ose, we can probably ask Ms. Browner some of these questions tomorrow.

Mr. OSE. I think so. I do want to share with you one tiny piece of information.

Mr. Hawkins mentioned the national parks. This actually deals with national forests. I am aware, because of the relationship with people in my district, that Calpine has been attempting to develop a geothermal project on Federal leases in the Klamath National Forest in northern California since 1996.

The NEPA review for the project by the Bureau of Land Management, the U.S. Forest Service, took over 2 years to complete. The final environmental impact statement found that the project had no

unmitigatable impacts on the environment. That means they could all be resolved. However, it would have a negative impact on spiritual uses of the area by Native Americans. Upon issuance of the EIS in October 1998, the agencies—and that would be the Bureau of Land Management and the Forest Service—then took 20 months to issue their decision to approve the project.

The agency's decision was then appealed by project opponents to both the U.S. Forest Service and the Interior Board of Land Appeals, which rules on appeals involving BLM decisions. The U.S. Forest Service issued its decision to deny appeals in September 2000, but the Interior Board of Land Appeals decided to issue a stay, so that no development activity can proceed until it rules on its appeal.

Now, this Interior Board of Land Appeals normally takes 18 to 24 months to make its decision. This is a project that has no unmitigatable environmental impacts within the EIS, other than the spiritual uses of the area by Native Americans. We are looking at a 6-year permitting process at a cost to the proponent of \$3 million for a relatively small renewable energy project that utilizes natural energy production.

Mr. BURTON. I think Ms. Browner ought to be asked that question tomorrow.

Mr. OSE. I do want to say, Mr. Chairman, you have been very, very generous with time today, and thank you for that.

Mr. BURTON. It is only because of your intellect.

Mr. OSE. I yield back.

Mr. BURTON. I would just like to ask Mr. Hawkins one last question. I see that you are getting—or Market-Based Energy Transformation gave you—I guess it was an EPA grant they received of \$1.13 million from 1996 to 1999, and Promoting Energy—Economies in Transition was another EPA grant for almost half a million dollars, from the 1995 to 1999 time period.

Did you get new grants since that time from them, from the EPA?

Mr. HAWKINS. We have grants from all the government agencies that typically run about 2 to 3 percent of our annual budget in total. I asked actually before coming up here this morning whether we had the summary for the fiscal year that just ended, and I was told we don't have that information, but I will be happy to provide it to you when we have it.

Mr. BURTON. Would you?

Mr. HAWKINS. I do know that our funding level is—for the last year is not significantly different than it was in prior years. And frankly, Mr. Chairman, as a matter of policy, organizational policy, we have deliberately kept these funding grants and contracts from the Federal Government at a very low level, precisely because we did not want to be in a position where our policies—our policy advocacy could somehow be inferred to be a result or dependent upon the existence of Federal grants or contracts. That is why we have kept it at a very low level, only a couple of percent of our total revenue.

Mr. BURTON. That is interesting. Your total revenue must be an awful lot, because this is \$1¾ million.

Mr. HAWKINS. Over 3 years. Our annual budget is about \$30 million a year.

Mr. BURTON. Is that right?

Mr. HAWKINS. Yes.

Mr. BURTON. Where do most of your funds come from?

Mr. HAWKINS. They come from foundations and membership.

Mr. BURTON. What is the organization? Is it the National Resources Defense Council?

Mr. HAWKINS. That's right.

Mr. BURTON. Is that the organization that has this large membership that provides this revenue?

Mr. HAWKINS. Yes. We have about 400,000 members. We have about 175 people on staff, four offices. We started 30 years ago, in 1970.

Mr. BURTON. That is a big organization. That is very interesting. But you do get 1¾ million, and you say it is about the same levels as it has been?

Mr. HAWKINS. That is my expectation. I don't have the numbers, but as soon as our New York office provides them to me, I will provide them to you.

Mr. BURTON. We would like to have that.

I want to thank all of you for being so patient. I really appreciate your candor. Some of the things that you have talked about, Mr. Slaughter and Mr. Simon and Mr. Hildebrand, we are going to address before the head of the EPA and the Energy Department tomorrow, and hopefully maybe we can streamline some of the problems that you have to face so you don't have to face them quite as severely in the future.

With that, we stand adjourned.

[Whereupon, at 6:21 p.m., the committee was adjourned.]

POTENTIAL ENERGY CRISIS IN THE WINTER OF 2000

THURSDAY, SEPTEMBER 21, 2000

HOUSE OF REPRESENTATIVES,
COMMITTEE ON GOVERNMENT REFORM,
Washington, DC.

The committee met, pursuant to notice, at 12:35 p.m., in room 2154, Rayburn House Office Building, Hon. Dan Burton (chairman of the committee) presiding.

Present: Representatives Burton, Gilman, Morella, Shays, McHugh, LaTourette, Sanford, Hutchinson, Terry, Ose, Ryan, Waxman, Sanders, Kucinich, Tierney, Allen, and Schakowsky.

Staff present: Kevin Binger, staff director; Daniel R. Moll, deputy staff director; James C. Wilson, chief counsel; David A. Kass, deputy counsel and parliamentarian; Sean Spicer, director of communications; Josie Duckett, deputy director of communications; S. Elizabeth Clay, Nicole Petrosino, Nat Weinecke, and Carolyn Katzen, professional staff members; Robert Briggs, clerk; Robin Butler, office manager; Michael Canty, legislative assistant; Leneal Scott, computer systems manager; John Sare, staff assistant; Maria Tamburri, assistant to chief counsel; Corinne Zaccagnini, systems administrator; Phil Schiliro, minority staff director; Phil Barnett, minority chief counsel; Kristin Amerling, minority deputy chief counsel; Ellen Rayner, minority chief clerk; Jean Gosa and Earley Green, minority assistant clerks; and Greg Dotson, minority counsel.

Mr. BURTON. The hearing will come to order.

We are expecting other Members here shortly but, because of the time constraints that Secretary Richardson and Ms. Browner have today as well as Mr. Hoecker, we will go ahead and get started.

I will start off by letting my distinguished senior colleague from the International Relations Committee, Mr. Gilman, make an opening statement.

Mr. GILMAN. I want to thank you, Chairman Burton, for this series of hearings on this oil crisis that is affecting all of our regions, but particularly the Northeast region. I want to thank our witnesses, Secretary Richardson of our Department of Energy, our Administrator Carol Browner of the Environmental Protection Agency, and James Hoecker, chairman of the Federal Energy Regulatory Commission. It is so good you are willing to come and share with us some of your thoughts on how we can best resolve this crisis.

I just mentioned to Secretary Richardson that I just left a meeting with the Vice Minister of Energy in Venezuela who has offered to be of help. I know that our Secretary of Energy has been meet-

ing with some of the other OPEC nations. We, too, in our International Relations Committee are having bilateral meetings with our OPEC nations, trying to convince them that this is not the way to keep good will between our Nation and their oil-producing activities. Their manipulation of the market certainly does not help our economy, nor our consumers, nor industry. We hope we can finally convince them to open the spigot so that we are not going to be confronted with all of these problems.

Energy Secretary Bill Richardson testified before our committee and told us about his diplomatic efforts, and we hope that they will produce results, and we look forward to hearing. Last winter, we were told that the increase in the cost of fuel was a result of the heavy winter. And over the past few months, the administration told us that the prices of fuel went up due to increased travel this summer and a host of other reasons. I think what we need most for the American people right now is a strategic, forward looking energy policy that takes into account that our seasons are not natural disasters, but something that occurs every year and is something that we should be planning for.

In the Short Term Energy Outlook for September, the Energy Information Agency reported that "Unless the winter in the Northeast is unusually mild and/or world crude oil prices collapse, substantial price strength gains for heating oil and diesel fuel are highly likely." Once again, it appears that mother nature has been dictating the energy policy for the administration, rather than our administration being proactive and creating and implementing both a short and long term energy policy that takes winter weather into consideration and plans for it rather than hoping for a mild winter.

So, we welcome having our Secretaries here and our Administrator here. Mr. Chairman, I again want to thank you and Ranking Minority Member Waxman for conducting this series of hearings.

Mr. BURTON. Thank you, Chairman Gilman.

Let me start with the official business, besides your opening statement, and say that a quorum being present, the Committee on Government Reform will come to order.

I ask unanimous consent that all Members' and witnesses' opening statements be included in the record. And without objection, so ordered.

I ask unanimous consent that all articles, exhibits, and extraneous or tabular material referred to be included in the record. Without objection, so ordered.

And I ask unanimous consent that questioning in this matter proceed under clause 2(j)(2) of House rule 11 and committee rule 14, in which the chairman and ranking minority member allocate time to members of the committee as they deem appropriate for extended questioning, not to exceed 60 minutes equally divided between the majority and the minority. Without objection, so ordered.

Today, we return for our third day of hearings on problems in our energy markets. Before I get into my statement too much, Ms. Browner told me that her father, Michael Browner, is here today and I wanted to acknowledge him. He is from Limerick, Ireland, and now lives in Florida. Where are you, sir? Just wanted to recognize you and let you know we love Ireland.

[Applause.]

Mr. BURTON. We welcome you to the good ole' USA. I guess you have been here for a while though.

Anyway, we are happy to have before us the Secretary of Energy, Mr. Richardson, and Ms. Browner, the head of the EPA. We welcome you both back. You have been here before. We also have the chairman of the Federal Energy Regulatory Commission, Mr. Hoecker. This is the first time you have been before us, and we welcome you.

Energy prices are soaring all around us—gasoline, home heating oil, natural gas, electricity. We are seeing disruptions in supply. And it seems like fires are erupting faster than we can put them out. If this situation continues, every American family across the country is going to feel the impact this winter and next summer. No one is going to be immune.

Yesterday I spent some time talking about some of the early warning signs we are seeing. But it is worth taking another look.

This summer, the price of reformulated gasoline shot up to over \$2 a barrel in the Midwest.

Last winter, the price of home heating oil more than doubled in New England and the Northeast. This fall, inventories are at a 5-year low. Prices are so high that distributors are going into the winter with empty storage tanks.

The price of crude oil is now closing in on \$40 a barrel. At the beginning of last year it was \$10 a barrel. Almost a 400 percent increase.

The price of natural gas has tripled since last spring.

In Montana, electricity rates have gone up 500 percent for industrial users. We heard yesterday from a businessman who had to shut down his business and lay off 300 people simply because they could not pay their electric bills.

In San Diego, CA, electricity rates have tripled. Week after week, the State of California has to turn off the power to many of its large customers to keep the whole grid from crashing.

These problems are mounting one on top of another, and we have seen no energy policy long term from this administration. What is the administration going to do to help bring natural gas prices down? What is the administration going to do to stop gasoline and home heating oil price spikes? What is the administration going to do to help restore stability to our electricity grid?

We need to deal with these problems. We have to have an energy policy, and we have to have it right now. The administration simply does not have one.

Senior citizens living on fixed incomes cannot afford to see their electric bills double or triple now or this winter. Low-income families cannot afford to pay twice as much to heat their homes. They simply cannot do it.

We have some fundamental problems with our energy markets. They are supply and demand problems. Demand keeps growing, but supply is simply not keeping up. Oil refineries and electricity generators, our transmission systems are practically bursting at the seams. All it takes is one small disruption to put the entire system into a tailspin and send prices soaring. We saw that this past summer in Chicago.

Yesterday, we heard from professionals in the energy business. We asked them about the obstacles they face, why they are having trouble keeping up with demand. In almost every instance, the story was the same—government over-regulation. In some cases, it is State and local laws that create the problem. In many cases, it is the Federal Government and Federal regulations.

We talked to a home heating oil distributor from New England. He told us, first of all, that prices are so high that distributors cannot fill their storage tanks to get ready for the winter. They are going into the winter with empty tanks. But he also told us one of the strangest stories of red tape run amuck that I have ever heard, and I have heard quite a few.

He brought with him four little bottles—and I want to show you these bottles here, they are different colors, as you can see—four little bottles of diesel fuel. They are all different colors. I asked him to leave the bottles with me so I could put them on display and ask you about them. The Federal Government makes the dealer dye these fuels different colors and store them in different tanks, thus necessitating more expenditures for tanks. The two red ones are compliments of the Treasury Department. They are apparently for off-road use. The Treasury Department makes the dealers dye them different shades of red to make sure that no one cheats on their excise taxes. The two clear ones are compliments of the EPA. The EPA makes the dealers store them in separate tanks because they have slight differences in their sulfur levels.

Dealers have a dwindling number of storage tanks because it is not economical to build them anymore. At the same time, they have to subdivide the tanks that they do have to hold these four different colored fuels. They have to have different trucks to haul the different colors. And the kicker is this—they are all practically the same fuel, the differences are very small.

I probably did not explain all of that very well. I have had it explained to me three or four times yesterday, but I am still not sure that I get it. I do know this much, it is one of the more bizarre stories of government run amuck that I have heard. At a time that they are facing a market that has been turned on its head, these dealers should not have to deal with this kind of nonsense.

Now that is a fairly small problem. The problems that the gasoline industry is facing are much more serious. Under the Clean Air Act and other Federal regulations, it is impossible to build a new refinery in America. It has not been done in 25 years. In 1982, there were 231 refineries in the United States. Today, that has been reduced from 231 to 155.

Yet at the same time, refiners have to make as many as 15 different blends of gasoline to comply with the reformulated gas rules during the summertime. So on the one hand, they cannot expand their capacity to keep up with demand, and on the other hand, the Federal Government is placing all of these additional demands for specialty fuels on them.

We have a chart here of all the different fuels Citgo has to make in one region. Can we put that up on the monitors? Do we have that for the monitors? Oh, that is the only one we have is the big poster. So I will draw your attention to the poster over there. You can see the different colors. Their refineries are being stretched to

the limit. Under those circumstances, all it takes is one little disruption to bring the whole system down. That is what happened in Chicago and Milwaukee this summer and is going to happen again unless we make some changes.

But that is not all. We were told yesterday that the EPA has a raft of new regulations for gasoline and diesel fuels in the works. They are going to take effect in the next few years. Industry is telling them that if they are hit with these new restrictions in such a short time period, it is going to overload the system. It is going to disrupt fuel supplies. Consumers are going to be hurt. But apparently not many people are paying any attention.

When I say that we don't have a serious energy policy in this country, that is exactly what we are talking about. Industry has offered solutions that would bring about dramatic reductions in sulfur and other pollutants, but that wouldn't disrupt supply. The EPA apparently is not interested. That is something that I and other Members want to talk to both Ms. Browner and Mr. Richardson about today.

Yesterday, we heard from an executive who builds electric power plants. His company is building a state-of-the-art facility in California. It sailed through the permit process. But under EPA rules, all it takes is one person to file an appeal and the whole process is brought to a screeching halt. One person who lived over 100 miles away from this particular site filed an appeal and the project was shut down for more than 4 months. And I want to tell you, the Sierra Club and everybody else was for the project, and evidently you were. But the regulation that was in place allowed this one person to shut it down for 4 months.

That has put an extremely large strain on California. The people in California are now asking them to work double shifts to get that generating capacity on line and they are trying to do it, obviously, to avoid more blackouts now and in the future. Ironically, the EPA has been working on new rules to streamline the appeals process and weed out frivolous appeals since 1992. The new rules still have not taken effect.

Now these are just a few examples of areas where the government can exercise a little common sense to help solve some of these problems. But it is not happening. Nobody is saying we should repeal the Clean Air Act. Nobody is saying we should roll back the clock. But how about just a little more flexibility for some of these industries as we move forward?

These problems are not going to go away by themselves. The Energy Information Administration projects that natural gas prices will go up another 23 percent this winter over current prices. They estimate that home heating oil will go up another 31 percent this winter. When families are seeing their electricity bills tripling, and when businesses are laying people off because they cannot pay their energy bills, something has to be done. If we do not develop a tough energy policy and stick to it, we are just going to keep lurching from one crisis to another.

The bottom line is this—we cannot bury our heads in the sand anymore. We have to have a strong energy policy. Under this administration, we have not, unfortunately, had a strong energy policy. We have suffered for the past 8 years.

We need a policy that will help us become more self-sufficient. We have enormous deposits of oil and gas that are off-limits, and I am going to ask questions about that in a few minutes. We have sites in the United States that we have been told by experts, yesterday and before, that have tremendous deposits of natural gas and oil that could be drilled in an environmentally safe way and they are off-limits, we cannot get to them. And with all those reserves, some of them 50, 60, 70 years of reserves, it seems to me that we ought to take another look at that.

We need to review some of these new EPA rules coming down the pike to see if there is some flexibility that could be put in order.

I want to say once again to Secretary Richardson, Ms. Browner, and Mr. Hoecker that we really appreciate your being here. We have a lot of questions and I look forward to hearing your answers.

I understand that Secretary Richardson is under time constraints. We will try to meet his time constraints so that he can get to other business that he has to do. But I do want to afford my colleagues as much time as possible for questions. So we will start with you, Mr. Richardson, and ask you for your opening remarks.

[The prepared statement of Hon. Dan Burton follows:]

**Opening Statement
Chairman Dan Burton
Committee on Government Reform
“Potential Energy Crisis in the Winter of 2000 - Day II”
September 21, 2000**

Good Afternoon.

Today, we return for our third day of hearings on problems in our energy markets. We are happy to have before us the Secretary of Energy, Mr. Richardson, and the head of the EPA, Mrs. Browner. Welcome back. We also have the Chairman of the Federal Energy Regulatory Commission, Mr. Hoecker (Hecker). I believe this is Mr. Hoecker's (Hecker) first time testifying before this committee, and we're glad to have you here today.

Energy prices are soaring all around us -- gasoline, home heating oil, natural gas, electricity. We're seeing disruptions in supply. It seems like fires are erupting faster than we can put them out. If this situation continues, every American family across the country is going to feel the impact this winter and next summer. No one is going to be immune.

Yesterday, I spent some time talking about some of the early warning signs we're seeing. It's worth taking another look:

- This summer, the price of reformulated gasoline shot up to over \$2 a barrel in the Midwest.
- Last winter, the price of home heating oil more than doubled in New England. This fall, inventories are at a five-year low. Prices are so high that distributors are going into the winter with empty storage tanks.
- The price of crude oil is now closing in on \$40 a barrel. At the beginning of last year, it was \$10.
- The price of natural gas has tripled since last spring.
- In Montana, electricity rates have gone up 500 percent for industrial users. We heard yesterday from a businessman who had to shut down his business and lay off 300 people because they couldn't pay their electric bills.
- In San Diego, electricity rates have tripled.
- Week after week, the State of California has to turn off the power to many of its large customers to keep the whole grid from crashing.

These problems are mounting one on top of another, and we've seen no energy policy from this Administration. What is this Administration going to do to help bring natural gas prices down? What is this Administration going to do to stop gasoline and home heating oil price spikes? What is this Administration going to do to restore stability to our electricity grid?

We need to deal with these problems. We need to have an energy policy, and right now, this Administration doesn't have one. Senior citizens living on fixed incomes can't afford to see their electric bills double or triple. Low-income families can't afford to pay twice as much to heat their homes. They simply can't.

We have some fundamental problems in our energy markets. They're supply and demand problems. Demand keeps growing. Supply isn't keeping up. Our oil refineries, our electricity

generators, our transmission systems are practically bursting at the seams. All it takes is one small disruption to put the entire system into a tailspin and send prices soaring. We saw that this summer in Chicago.

Yesterday, we heard from professionals in the energy business. We asked them about the obstacles they face -- why they're having trouble keeping up with demand. In almost every instance, the story was the same: government regulation. In some cases it's state and local laws that create the problem. In many cases, it's Federal regulations.

We talked to a home heating oil distributor from New England. He told us first of all that prices are so high that distributors can't fill their storage tanks to get ready for the winter. They're going into the winter with empty tanks. But he also told us one of the strangest stories of red tape run amok that I've ever heard -- and I've heard a few.

He brought with him four little bottles of diesel fuel -- they're all different colors. I asked him to leave the bottles with me so I could put them on display. Here they are. The Federal government makes the dealer dye these fuels different colors and store them in different tanks. The two red ones are compliments of the Treasury Department. They're apparently for off-road use. The Treasury Department makes the dealers dye them different shades of red to make sure that no one cheats on their taxes. The two clear ones are compliments of the EPA. The EPA makes the dealers store them separately because they have slight differences in their sulfur levels.

Dealers have a dwindling number of storage tanks because it isn't economical to build them anymore. At the same time, they have to subdivide the tanks they do have to hold these four different colored fuels. They have to have different trucks to haul the different colors. And the kicker is this -- they're all practically the same fuel -- the differences are very small.

I probably didn't explain that very well. I've had it explained to me three or four times, and I'm still not sure I get it. I do know this much, it's one of the more bizarre stories of government run amok that I've heard. At a time that they're facing a market that's been turned on its head, they shouldn't have to deal with this kind of nonsense.

That's a fairly small problem. The problems that the gasoline industry is facing are much more serious. Under the Clean Air Act and other Federal regulations, it's impossible to build a new refinery in this country. It hasn't been done in 25 years. In 1982, there were 231 refineries in the United States. Today, there are 155.

Yet at the same time, refiners have to make as many as 15 different blends of gasoline in the summertime to comply with the reformulated gasoline rules. So on the one hand, they can't expand their capacity to keep up with demand, and on the other hand, the Federal government is placing all of these additional demands for specialty fuels on them. {CHART} We have a chart here of all the different fuels Citgo has to make in one region. You can see the different colors. Their refineries are being stretched to the limit. Under those circumstances, all it takes is one little disruption to bring the whole system down. What happened in Chicago and Milwaukee this summer is going to happen again and again unless we make some changes.

But that's not all. We were told yesterday that the EPA has a raft of new regulations for gasoline and diesel fuels in the works. They're going to take effect in the next few years. {Chart} We have a chart showing the timeline. Industry is telling them that if they're hit with these new restrictions in such a short time period, it's going to overload the system. It's going to disrupt fuel supplies. Consumers are going to be hurt. But apparently nobody's paying any attention.

When I say that we don't have a serious energy policy in this country, this is exactly what I'm talking about. Industry has offered solutions that would bring about dramatic reductions in sulfur and other pollutants, but that wouldn't disrupt supply. The EPA isn't interested. That's something I and other Members want to talk to both Mrs. Browner and Mr. Richardson about today.

Yesterday, we heard from an executive who builds electric power plants. His company is building a state-of-the-art facility in California. It sailed through the permit process. But under EPA rules, all it takes is one person to file an appeal, and the whole process is brought to a screaming halt. One person who lived 100 miles away from this particular site filed an appeal, and the project was shut down for more than four months. By the time the appeal was dismissed, prime construction season was over and the rainy season had started.

The state of California is desperate for new generating capacity. They're now pressuring the company to work double shifts to get the plant on-line by next summer to try to avoid black-outs. Ironically, the EPA has been working on new rules to streamline the appeals process and weed out frivolous appeals since 1992. The new rules still haven't taken effect.

These are just a few examples of areas where the government can exercise a little common sense to help solve some of these problems. But it isn't happening. Nobody's saying we should repeal the Clean Air Act. Nobody's saying we should roll back the clock. How about just a little more flexibility as we move forward?

These problems aren't going to go away by themselves. The Energy Information Administration projects that natural gas prices will go up another 23% over current prices. They estimate that home heating oil will go up another 31% this winter. When families are seeing their electricity bills tripling, and when businesses are laying people off because they can't pay their energy bills, something has to be done. If we don't develop a tough energy policy and stick to it, we're just going to keep lurching from one crisis to the next.

The bottom line is this -- we can't bury our heads in the sand anymore. We have to have a strong energy policy. Under this Administration, we haven't had a strong energy policy. We've suffered from eight years of neglect.

We need a policy that will help us become more self-sufficient. We have enormous deposits of oil and gas that are off-limits. We need to take another look at that. We need to review some of these new EPA rules coming down the pike to see if some flexibility isn't in order.

Secretary Richardson, Administrator Browner, Mr. Hoecker (Hecker), thank you for being here. We appreciate your time. We have a lot of questions about all of these issues. I look forward to hearing your answers.

I understand that Secretary Richardson needs to leave by about two o'clock for an important meeting. We'll try to get as much of our business done by then as possible. We're going to limit opening statements so we can get to questioning. I hope that our other two witnesses will be able to stay with us if necessary.

I now yield to Mr. Waxman for his opening statement.

Mr. GILMAN. Mr. Chairman, may I ask permission to insert my full opening statement in the record.

Mr. BURTON. Yes, that is fine.

Do other Members have opening statements real quickly? Oh, I'm sorry, Mr. Waxman, of course you have one. And then I will ask other Members if they don't have an urgent need for opening statements, if they would put those statements in the record. But if they do have opening statements they want to make, we will accede to their wishes.

Mr. Waxman.

Mr. WAXMAN. Thank you very much, Mr. Chairman. We had a hearing yesterday and at that hearing I said that we are looking at a topic that has been neglected by the Congress for too long, and that is the topic of an energy policy. I learned yesterday that there is a bipartisan agreement that our Nation faces serious energy problems. Members on both sides are worried about the impacts of high energy prices on our constituents. And there are certainly grounds for concern.

The price of crude oil has risen dramatically over the past year. Last winter in the Northeast, the cost of heating a home with oil soared. And prices could be even higher this year. And this summer in California, consumers in San Diego have faced electricity bills that are two to three times higher than normal, and other areas of the State have experienced brownouts.

Unfortunately, I also learned yesterday that there is no bipartisan agreement about the causes of these problems and how we should address them. Chairman Burton and other Republican leaders blame the policies of the Clinton administration. Some even claim that the Clean Air Act, one of our Nation's most successful environmental laws, is the cause of soaring energy prices. We had one executive from an oil company tell us yesterday that we ought to just let them drill off the coast of our Nation and set up oil wells, that that would solve our problem.

These theories may make for good politics but they are basically nonsense. The fundamental problem that our Nation faces is that we are too dependent on fossil fuels in general, and oil in particular. This leaves us vulnerable to manipulation by OPEC and threatens our economic and national security. And as we enter the 21st century, we are also burdened with an antiquated electric utility infrastructure.

Now these are not new problems. Gas lines in the 1970's showed us the dangers of excessive reliance on oil. But a combination of factors—lower energy prices, anti-regulatory sentiment in the administration in the 1980's and in the Congress in the 1990's, and a growing economy—have conspired to halt our progress toward alternative fuels, renewable energy, and energy independence. In fact, we consume more oil, more gasoline, and more diesel fuel today than we did 20 years ago.

The Clinton administration has proposed modest steps to reduce our dependence on oil and other fossil fuels. The administration has proposed tax credits to spur energy efficiency and research and development partnerships with the auto industry to develop a new generation of clean vehicles. And the administration has sent Con-

gress electricity restructuring legislation. But even these needed measures have met resistance in the Congress.

As a result, we have not formulated or implemented the kind of comprehensive energy policy our Nation needs. The last time Congress enacted a comprehensive piece of energy legislation was 1992. In recent years, the Republican leadership in Congress has even gone so far as to call for the abolition of the Department of Energy and the sale of the strategic petroleum reserve.

The States too have made mistakes. With hindsight, the deregulation efforts in California may have serious flaws, allowing energy suppliers to manipulate the market and raise prices through the roof.

But while we face serious problems today, the future could be much brighter. Our energy policy may have stagnated, but technology has not. New energy technologies are on the horizon that can strengthen our economy, protect our environment, and lessen our dependence on oil and other fossil fuels.

Fuel cells, for instance, have made enormous strides in recent years. This technology combines hydrogen with oxygen via an electrical chemical process to generate electricity without emitting any air pollution or greenhouse gasses. The costs of this technology are dropping and prototypes have been developed that can run automobiles or light buildings. And since fuel cells do not have to run off of gasoline, they can reduce our dependence on foreign oil. I would also like to point out that the distributor generation with fuel cells avoids the need to construct high voltage transmission lines that are often difficult to site and costly to build.

It will not be easy to shift course. We learned yesterday that big oil and gas companies are making billions off of today's high prices. They hire countless lobbyist and give millions in campaign contributions to preserve the status quo. But if we have the political will, we can craft a sound energy policy for our children, one that relies on new technologies, energy efficiency, and renewable energy to create new industries and jobs, provide greater energy independence, and protect the global environment.

The energy crisis of the 1970's showed us the importance of developing forward-looking energy policies. But unfortunately, we squandered that opportunity to reduce our dependence on oil and implement needed changes in U.S. energy policy. I hope we will not repeat that mistake again.

I yield back the balance of my time.

Mr. BURTON. Do other Members have opening statements that they feel they want to make?

Mr. OSE. Mr. Chairman, I would be happy to enter mine into the record, if it is agreeable to the other side to do all such statements, so we can get to the witnesses.

Mr. BURTON. I always like to allow Members to make opening statements if they choose to do so. The only problem is that Mr. Richardson and Ms. Browner I think are under some time constraints and I would like to get to questioning as soon as possible. But if you have an opening statement that you want to make—

Mr. OSE. I would be happy to submit mine to the record in the interest of time.

Mr. BURTON. Without objection, so ordered.

Anyone else have an opening statement?

Mr. Kucinich.

Mr. KUCINICH. I have an opening statement and I will submit it for the record. I would just like to say that I represent Cleveland and one of the things that is happening in our area is the price of natural gas has gone up three times in a year.

When we look at the supply of natural gas, there seems to be some real questions. I think all of us remember that the Federal Energy Regulatory Commission presided over the deregulation of natural gas wholesale rates, and we are now experiencing a steep rise in natural gas prices, even before families are turning on the heat.

We are also seeing the use of certain market mechanisms by natural gas companies where they are now offering long term contracts at reduced rates and variable rates to their customers while they are asserting questions of whether they have an adequate supply. The demand remains constant, the price goes up. In some cases, demand has even exceeded that.

The question I hope to see answered in this hearing is what are people supposed to do when it looks like Government is not adequately responding. The prices keep going up and up. I am hopeful that we are going to see addressed in this hearing the question of whether or not this free market approach that has been taken has its limits. There are programs in place for low-income people, but what about middle-income people and working people who are going to see their whole way of living under attack with these sharp price increases. Can Government just afford to stand on the sidelines and let the natural gas companies and the oil companies charge whatever they want. I hope not.

Mr. BURTON. Thank you, Mr. Kucinich.

Mr. TERRY. I'll pass. I would like to give the witnesses a chance.

Mr. BURTON. Thank you. Ms. Schakowsky.

Mrs. SCHAKOWSKY. Thank you, Mr. Chairman. I will be very brief.

I want to take this opportunity to publicly thank Administrator Browner for her responsiveness to us during the time that the Midwest was suffering from differentially high gasoline prices this summer, and her effectiveness in helping initiate an FTC investigation. Some may argue otherwise, but I do believe that the initiation of that investigation itself helped to bring prices in line at least with the rest of the Nation, as high as they may be.

And to Secretary Richardson, thank you for your responsiveness, too. We had a meeting of our Energy Task Force with you and you indicated your willingness to say that everything is on the table. And to thank the Vice President for the initiation yesterday of the concrete proposals that he made.

In Illinois, we are seeing natural gas prices at unprecedented levels. In July, they told us that last year's bill of \$410 would be \$610 this year. They have revised that upward to \$750 this year for the same amount of gas that last year cost \$410.

Finally, just a couple of sentences. If we want to point fingers, I was not here when we deregulated natural gas but I was organizing around this issue with lots of consumers who were very concerned about it. It seems to me now that we are reaping the re-

wards of some of that. If we want to point fingers, we should look at big oil and big gas and say how come, at a time when anyone could predict shortages, that we were seeing a decrease in production and, remarkably, a dramatic increase in profits.

I think that we need to take steps as the Government, but it has not been for lack of trying. I think now that we move more aggressively forward, that is important, but I think we need to question big oil and big gas about their role. Thank you.

Mr. BURTON. It is the intent of the chairman to go ahead with the hearing and have Mr. Shays take over the Chair when he comes back. So if people want to go vote and come back to expedite the hearing, that would be fine.

Mr. SANDERS. I will be very brief. No. 1, I want to thank our guests for being here, and thank both of them for the excellent work they are doing. Thank Mr. Richardson for meeting with the New England delegation yesterday, and Ms. Browner for the outstanding work she has done for so many years.

I just want to inform both of them, they may or may not know, that well over 100 Members of Congress from both parties sent a letter to the President and congressional leaders outlining six basic points that we would like to see action on, and action on immediately.

No. 1, Mr. Richardson, thank you for your efforts in moving the Northeast Home Heating Oil Reserve forward. That is a request that we made to you last year and the administration has moved actively on that. I know that you need now authorization from the Senate so there can be a trigger mechanism so that President can release that oil. We have got to give that to the President.

No. 2, we must release oil from the Strategic Petroleum Reserve. We have discussed that at great length. We have close to 600 million barrels sitting out there. There is an emergency. Middle-class working families, elderly people cannot afford to see prices go higher and higher. Let us release some of that oil. That is why it is there.

No. 3, I believe the administration has got to be more vigorous in negotiating with OPEC. Americans lost lives bringing the Kuwait ruling family back into power, defending Saudi Arabia. They cannot turn their back on us at a time of need and cut back production.

No. 4, with soaring prices, there must be a significant increase in LIHEAP funding and the President must release as soon as possible a substantial amount of emergency LIHEAP money so the people have the opportunity of buying oil before prices really hit the roof.

Fifth, we all agree that we need much more vigorous long term energy conservation. We are more dependent on the Mideast now than we were 25 years ago. Ms. Browner, you and I discussed this a couple of months ago. Vermont is beginning to try to do something. We can significantly lower the amount of energy that we are utilizing in this country. It is an outrage that we are not.

Let's go forward in those areas. We should give you the tools, you should be vigorous in expounding that.

Mr. Chairman, thank you very much.

Mr. BURTON. Thank you, Mr. Sanders.

We have a custom here of swearing in our witnesses. Would you please rise and raise your right hands.

[Witnesses sworn.]

Mr. BURTON. Secretary Richardson, do you have an opening statement?

**STATEMENT OF BILL RICHARDSON, SECRETARY,
DEPARTMENT OF ENERGY**

Secretary RICHARDSON. Chairman Burton, I want to thank you for the responsiveness and graciousness that you have undertaken with my schedule today. I appreciate it.

Mr. Chairman, our energy policy is based on: market forces, not market making; diversity of supply, and robust diplomatic relations with energy producing countries; on improving production and use of traditional fuels through new technology; it is based on diversity of energy sources, with broad investment in alternative energy sources; it is based on increasing energy efficiency; and, last, in preserving and fortifying our insurance policy against supply interruption, and that is our Strategic Petroleum Reserve.

Mr. Chairman, we have published two statements of our national energy policy in the past few years. These documents serve as blueprints for our energy policies that we have put forward by the administration. What we need now is a bipartisan energy policy to deal with the energy problems that many of you so ably outlined.

The main problem we have is volatility. Mr. Chairman, we need such over-arching policies, especially today. In the past year, we have seen substantial volatility in our energy markets. We have endured supply and price problems in heating oil, in gasoline, and in electricity. The year has not seen a season go by without an energy challenge. Every region of the country has shared in the increase in crude oil prices, and many regions have experienced specific problems on energy supplies.

It is essential that we recognize the importance of integrated, diverse energy supply and demand policies. Let me also state, Mr. Chairman, in this robust economy, in the last 7 years, energy demand in this country, partially because of the robust economy, has increased 14 percent. This has been an important factor.

With oil and gas markets, as you know, part of the administration's efforts to address market imbalances, I have talked extensively with oil producing nations. OPEC and other producers have heard our concerns and have boosted their output three times, with the most recent increases to come on line in October.

Our latest data shows that there are about 3.5 million barrels per day more oil on the market than at this time last year. That is a significant addition to the world market. And according to the Energy Department's Energy Information Administration, the latest addition of 800,000 barrels per day, along with boosted production from non-OPEC producers, should enable the oil industry to finally begin rebuilding global stocks, which has also been a problem.

I say "finally" because, while more oil has come into the markets over the past year, demand has grown much faster than anticipated, as I said, increasing by 14 percent in recent years. And as demand has absorbed additional supply from the market, the oil in-

dustry has been unable to refurbish stocks, even with, for example, U.S. refiners working at 96 percent of capacity.

These factors have combined to result in a number of price increases across the range of petroleum products. We see this in the crude market, which closed yesterday at \$37.20, one of the highest prices in a decade. We are seeing this at the gas pump, where drivers are paying an average of \$1.56 per gallon, up over 30 cents from last year, but down 12 cents from this past June when you held your hearing.

And with distillate reserves already at levels far lower than usual for this time of year, about 20 percent below last year, we are facing the potential for another heating oil shortfall.

The administration is taking steps to meet these energy challenges. Most notably, the administration took the step of creating a 2 million barrel Northeast Heating Oil Reserve, to be used to augment supplies if they are needed. Sites have already been chosen and contracts for the oil were let last month, and oil is coming into the reserve.

Mr. Chairman, let me be clear that we need the Congress to approve a reasonable trigger for releasing the heating oil in the reserve, as well as the funding to continue the reserve beyond this winter. That has not happened yet.

We also continue to examine the option of swapping oil from the Strategic Petroleum Reserve if the oil supply and supply conditions warrant it. We have renegotiated oil delivery schedules for the SPR's royalty fill program so that millions of barrels of oil go into the market instead.

Mr. Chairman, again let me remind you that Congress has delayed action to extend the Energy Policy and Conservation Act, which authorizes the Strategic Petroleum Reserve and America's participation in the International Energy Agency. We need to get that work done.

The administration has taken other aggressive measures. You will recall that to help American families heat their homes last winter, the President released all emergency Low Income Housing Energy Assistance funds available for the year. He also asked Congress for \$600 million more to replenish the reserve, funds which were just approved in July.

Still, the House and Senate have underfunded our fiscal year 2001 request for weatherization assistance. Mr. Chairman, we have found this to be an effective way for families to lessen their demand for heating oil and electricity and, in turn, lessen their winter energy bills. We need to have this critical relief increased in conference.

We also reestablished an Office of Energy Emergencies at our Department to coordinate with the States and other Federal agencies regarding energy-related crises. This helped us during the summer when electricity demand was high. We addressed the issue of supply through increased support for tankers; Small Business loans for distributors and other small businesses impacted by high prices; and encouraged refiners to increase production.

We have some budget needs. Mr. Chairman, we have these needs and they are a priority.

As I mentioned to you before, we have worked hard to escalate domestic production of oil, to cultivate alternative sources of energy, and amplify energy efficiency, especially in transportation. In fact, thanks to our vigorous research and development efforts, we have taken recent strides on this latter point, strides that will help reduce our dependence on foreign oil, continue to lessen pollution, and keep our economic engine humming at home and in the world marketplace.

For example, a major milestone is the Partnership for a New Generation of Vehicles, where recently we have auto makers unveiling three concept cars which may reach 80 miles per gallon in 3 or 4 years.

At the Department, we just announced the third and final part of our heavy vehicle truck research program. High efficiency, clean diesel engines for 18-wheelers, whose drivers have been hit hard by high oil prices. And a research project was recently launched with the heavy-duty vehicle industry to develop more energy-efficient trucks over the next 5 years, from pickups and SUVs to 18-wheelers.

As you know, Mr. Chairman, we are accelerating work in natural gas, which has emerged as a competitive and critical fossil energy resource. Our Energy Information Administration forecasts that demand for natural gas will grow by more than 4 percent in just 1 year.

So this is what we are doing: Working with the Interior Department and other agencies on simplifying access to public lands; we have an interagency working group meeting at the White House to pursue proposals on access to natural gas; and the administration is working to streamline environmental review processes, develop regional assessments of oil and gas resources, and advance technologies to produce on Federal lands.

In March, the President proposed tax incentives for oil and gas production, delayed expense of what is called GNG expensing which is more drilling for natural gas.

We need your support so we can do even more to get this relief to consumers.

Earlier this year, the President sent a letter to the Majority Leader of the Senate urging the Congress to work with the administration to enact the President's pending energy proposals as soon as possible. One chief component of the President's energy initiative is a \$4 billion tax package of tax incentives to encourage domestic oil and gas production, and for consumers to purchase more efficient cars, homes, and consumer products. While this package contains a number of viable solutions to our current challenges, solutions to be found right here in the United States, Mr. Chairman, the proposal has been idled in the Congress for more than 2 years.

The President has also repeatedly asked for increased investments to meet our energy needs. In fiscal year 2001, the President advanced a \$1.4 billion investment in Energy Department programs, in energy efficiency, renewable energy, natural gas, and distributed power systems. But still the Congress has not backed these investments, approving just 12 percent of the increase over the last 7 years. Mr. Chairman, this simply is not acceptable.

Right now, the President is requesting an additional \$19 million from Congress for low income home weatherization, funds which were not included in the Supplemental Appropriations Act.

On electricity restructuring, I would like to finish by expressing to you how disappointed I am that it appears Congress will adjourn without acting on electricity legislation, which Mr. Waxman mentioned.

The President submitted comprehensive electricity restructuring legislation to Congress 2 years ago. Unfortunately, the 106th Congress has failed to act on this or any other piece of electricity legislation. And you yourself mentioned the problems we are having with our electricity grid.

Mr. Chairman, the Congress' inability to adopt restructuring legislation has helped produce some of the difficulties seen in electricity markets in some parts of the country. Over the last several summers, some utilities struggled to meet demand. They were forced to cutoff interruptible customers and plead consumers and businesses to conserve energy. In some instances, they were forced to implement rolling blackouts to avoid complete collapse.

Mr. Chairman, as in our oil markets, unparalleled economic growth has spawned burgeoning demand that outstrips supply. And I know Chairman Hoecker is an expert on this issue and I am sure he can tell you more.

We have seen the price spikes in California, the Pacific Northwest, and parts of New York. Enactment of Federal electricity restructuring legislation, as proposed by the administration, along with several bipartisan proposals, would go a long way toward resolving this problem. It would help do so by establishing a Federal "rules of the road," where generating companies have the certainty they need on whether to invest in new power plans and transmission facilities. Moreover, our bill would help produce a more efficient interstate transmission system to enable the free flow of power to where it is needed the most. The legislation would also provide a funding source to make up for utility cutbacks in energy efficiency programs.

In light of the problems we face, I would urge the Congress to reconsider its inaction on electricity restructuring.

Mr. Chairman, again, thank you for listening, and thank you for accommodating our schedules.

[The prepared statement of Mr. Richardson follows:]

PREPARED ORAL STATEMENT OF
U.S. ENERGY SECRETARY BILL RICHARDSON
BEFORE THE HOUSE COMMITTEE ON GOVERNMENT REFORM
SEPTEMBER 21, 2000

Mr. Chairman, my responses to the energy issues of this year have been based on the Administration's unwavering – and strong – energy policy, which helps ensure our national energy security. We believe in:

- market forces -- not market making;
- diversity of supply, and robust diplomatic relations with energy producing nations;
- improving production and use of traditional fuels through new technologies;
- diversity of energy sources, with broad investment in alternative fuels and energy sources;
- increasing energy efficiency; and
- preserving and fortifying our insurance policy against supply interruption – our Strategic Petroleum Reserve.

As you know, the Clinton-Gore Administration has published two statements of its national energy policy in the last few years:

Sustainable Energy Strategy in July, 1995, and *The Comprehensive National Energy Strategy* in April of 1998.

These documents serve as blueprints for the energy policies both proposed and put in place by this Administration, and help ensure that our energy policy is a central mechanism in America's broader economic and national security policies.

VOLATILITY

Mr. Chairman, we need such overarching policies, especially today. In the past year, we have seen substantial volatility in our energy markets. We have endured supply and price problems in heating oil, gasoline, and electricity. The year has not seen a season go by without an energy challenge. Every region of the country has shared in the increase in crude oil prices, and many regions have experienced specific problems on energy supplies.

It is essential that we recognize the importance of integrated, diverse energy supply and demand policies. Let me begin by talking about oil and gas challenges.

OIL AND GAS MARKETS

As you know, as part of the Administration's efforts to address market imbalances, I've talked extensively with oil producing nations. OPEC and other producers have heard our concerns and have boosted their output three times, with the most recent increases to come on-line in October.

Our latest data shows that there are about ^{3.5}~~4~~ million barrels-per-day more oil on the market than at this time last year. That is a significant addition to the world market. And according to the Energy Department's Energy Information Administration, the latest addition of 800,000 barrels-per-day -- along with boosted production from non-OPEC producers -- should enable the oil industry to finally begin rebuilding global stocks.

I say "finally" because, while more oil has come onto the markets over the past year, demand has grown much faster than anticipated -- increasing by 14 percent in recent years. And as demand has absorbed additional supply from the market, the oil industry has been unable to refurbish stocks -- even with, for example, U.S. refiners working at 96 percent of capacity.

These factors have combined to result in a number of price increases across the range of petroleum products. We see this in the crude market, which closed yesterday at \$37.20 -- the highest price in a decade. We are seeing this at the gas pump, where drivers are paying an average of \$1.56 per gallon -- up over 30 cents from last year, but down 12 cents from this past June.

And with distillate reserves already at levels far lower than usual for this time of year -- about 20 percent below last year -- we are facing the potential for another heating oil shortfall.

ADMINISTRATION ACTIONS

The Administration is taking steps to meet these energy challenges.

Most notably: the Clinton-Gore Administration took the step of creating a two-million barrel Northeast heating oil reserve, to be used to augment supplies if they are needed. Sites have already been chosen and contracts for the oil were let last month, and oil is coming into the reserve.

Let me be clear that we need the Congress to approve a reasonable trigger for releasing the heating oil in the reserve, as well as the funding to continue the reserve beyond this winter.

We also continue to examine the option of swapping oil from the Strategic Petroleum Reserve if the oil supply and supply conditions warrant it. We have re-negotiated oil delivery schedules for the SPR's royalty fill program, so that millions of barrels of oil go into the market instead.

Mr. Chairman: let me remind you that Congress has delayed action to extend the Energy Policy and Conservation Act, which authorizes the Strategic Petroleum Reserve and our participation in the International Energy Agency. Let's get that work done.

This Administration has taken other aggressive measures. You will recall that -- to help American families heat their homes last winter -- the President released all emergency Low Income Housing Energy Assistance funds available for the year. He also asked Congress for \$600 million dollars more to replenish the reserve -- funds which were just approved in July.

Still, the House and Senate have underfunded our FY2001 request for weatherization assistance. Mr. Chairman: we have found this to be a very effective way for families to lessen their demand for heating oil and electricity and, in turn, lessen their winter energy bills. We need to have this critical relief increased in conference.

We also re-established an Office of Energy Emergencies at the Energy Department, to coordinate with the States and other federal agencies regarding energy-related crises. This helped us during the summer, when electricity demand was high.

We addressed the issue of supply through increased support for tankers; Small Business loans for distributors and other small businesses impacted by high prices; and encouraged refiners to increase production.

BUDGET NEEDS

Still, Mr. Chairman, we have crucial budget needs.

As I have mentioned to you before, we've worked hard to escalate domestic production of oil, to cultivate alternative sources of energy, and amplify energy efficiency – especially in transportation.

In fact -- thanks to our vigorous research and development efforts -- we have taken recent strides on this latter point, strides that will help reduce our dependence on foreign oil, continue to lessen pollution, and keep our economic engine humming at home and in the world marketplace.

For example, a major milestone in the Partnership for a New Generation of Vehicles program was recently met when automakers unveiled three concept cars, which may reach 80 mile per gallon in 3 or 4 years.

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As you know, Mr. Chairman, we are accelerating work in natural gas, which has emerged as a competitive and critical fossil energy resource. Our Energy Information Administration forecasts that demand for natural gas will grow by more than 4 percent this year.

So we are:

- Working with the Department of the Interior and other agencies on simplifying access to public lands;
- We have an Interagency Working Group meeting at the White House to pursue proposals on access; and
- The Administration is working to streamline environmental review processes, develop regional assessments of oil and gas resources, and advance technologies applicable to production on Federal lands.

And we need your support so that we can do even more to get relief to consumers.

Earlier this year, President Clinton sent a letter to the Senate Majority Leader, urging the Congress to work with the Administration to enact the President's pending energy proposals as soon as possible.

One chief component of the President's energy initiatives is a \$4 billion dollar package of tax incentives to encourage domestic oil and gas production, and for consumers to purchase more efficient cars, homes, and consumer products. While this package contains a number of viable solutions to our current challenges -- solutions to be found right here in the U.S., Mr. Chairman -- the proposal has idled on the Hill for more than two years.

The President has also repeatedly asked for increased investments to meet our energy needs. In FY2001, the President advanced a \$1.4 billion dollar investment for Energy Department programs in:

- energy efficiency;
- renewable energy;
- natural gas; and
- distributed power systems.

But still Congress has not backed these investments, approving just twelve percent of the increases over the past seven years. Mr. Chairman: this is simply not acceptable.

And right now, President Clinton is requesting an additional \$19 million dollars from Congress for low income home weatherization -- funds which were not included in the Supplemental Appropriations Act.

ELECTRICITY RESTRUCTURING

I'd like to finish by expressing to you how disappointed I am that it appears Congress will adjourn without acting on electricity legislation.

The President submitted Comprehensive Electricity Restructuring legislation to Congress two years ago. Unfortunately, the 106th Congress has failed to act on this or any other piece of electricity legislation.

Mr. Chairman, Congress' inability to adopt restructuring legislation has helped produce some of the difficulties seen in electricity markets in some parts of the country. Over the last several summers, some utilities struggled to meet demand. They were forced to cut-off interruptible customers and plead consumers and businesses to conserve energy. In some instances, they were forced to implement rolling blackouts to avoid complete collapse.

Mr. Chairman, as in our oil markets, unparalleled economic growth has spawned burgeoning demand that outstrips supply.

We have seen the price spikes in California, the Pacific Northwest, and parts of New York. Enactment of Federal electricity restructuring legislation, as proposed by the Administration, would go a long way towards resolving this problem.

It would help do so by establishing a Federal "rules of the road," where generating companies have the certainty they need on whether to invest in new power plants and transmission facilities. Moreover, our bill would help produce a more efficient interstate transmission system to enable the free flow of power to where it is needed the most. The legislation would also provide a funding source to make up for utility cutbacks in energy efficiency programs.

In light of the problems we've faced, I urge that Congress reconsider its inaction on electricity restructuring.

Now, let's get to your questions on all these important issues.

Mr. BURTON. Let me just say before we go to Ms. Browner, we asked all of our witnesses to submit their statements to us ahead of time. Unfortunately, I guess you could not do that. You wanted to leave, Mr. Secretary, by 2 p.m. today because you have an appointment. Because the statements were not given to us, and because they take so long, it may necessitate us having another hearing next week, because we do have a lot of questions and we really need to get those answered for the American people. And because of the time constraints that you are under today, we may not be able to get that done. So I wanted to apologize to you in advance, because we are going to get the questions answered, and I am sorry that it has taken this long.

Mr. WAXMAN. Mr. Chairman, maybe Mr. Richardson can stay longer, because this is an important hearing. Or, if we need to, we will have another one. But we did have a very, very long opening statement by the Chair, and I followed him and made an equally long one, not quite as long. But it is not fair for the witnesses to have to sit through all of our openings. But Mr. Richardson was in the House, he knows the way it works. So maybe he can stay a little longer, because we ought to get those questions asked and answered at this hearing.

Mr. BURTON. Absolutely.

Mr. WAXMAN. If he cannot, maybe we can get him back.

Mr. BURTON. That is absolutely correct.

So, Ms. Browner, you are recognized.

**STATEMENT OF CAROL BROWNER, ADMINISTRATOR,
ENVIRONMENTAL PROTECTION AGENCY**

Ms. BROWNER. Thank you, Mr. Chairman, members of the committee. It is a pleasure to be back before this committee. I welcome this opportunity to discuss the administration's belief that protecting the health of the American people is an essential part of good energy policy.

This administration's policy is to protect public health and to promote a healthy economy. We believe that this is clearly achievable. We believe that we have demonstrated it over the last 7½ years. We have achieved some of the greatest environmental progress in the history of this country and, at the same time, we have grown our economy in unprecedented ways.

I think a powerful example of this hand-in-hand relationship between a healthy economy and a healthy environment is provided by the results of the work that this Nation has done under the Clean Air Act Amendments of 1990. We are aggressively, and sensibly, implementing this landmark public health protection statute, which was enacted by Congress with bipartisan support and signed into law by then President Bush. The result of this unprecedented legislation is that we are achieving real public health benefits in ways that are consistent with a healthy economy and take into account the need for reliable energy supplies.

Over the past decade, we have made great strides in cleaning the air we breath while our economy is growing. Mr. Chairman and members of the committee, if I might refer you to this chart. This tells an incredible story. Between 1990 and 1999, the Nation's gross domestic product increased 32 percent. Fossil fuel consump-

tion increased 13 percent. Vehicles miles travelled, the distance, the miles we are driving our cars, increased 30 percent. At the same time, the aggregate emissions of the six predominant air pollutants decreased by 9 percent. Now that is a real success story. We are growing our economy, we are using more fuel, we are driving further, and yet our air is getting cleaner.

In addition, an unprecedented number of cities have met public health based national ambient air quality standards since 1991; 39 of the original 42 carbon monoxide areas are now in compliance, 59 of the original 98 ozone areas, 68 of the 85 original fine particle areas, all designated non-attainment, meeting standards today. Important public health standards.

The human health benefits of these emissions reductions required by Congress in the 1990 amendments are dramatic. The annual benefits in the year 2010, when the law is fully implemented, will include 23,000 fewer incidences of premature death, 20,000 fewer cases of chronic bronchitis, 47,000 fewer cases of acute bronchitis, 22,000 fewer respiratory-related hospital admissions, 42,000 fewer cardiovascular hospital admissions, 4,800 fewer emergency room visits for asthma. The list goes on and on. The public health benefits of cleaning our air are dramatic. They are real.

Now the Clean Air Act recognizes that we cannot meet the public health goals set by that important piece of legislation without reducing air pollution from sources such as coal fired power plants, gasoline, and diesel fuels. I think it is important to note that there are many in industry that have done their part, that have risen to these challenges.

The utility industry dramatically cut acid rain-causing emissions from powerplants while net electricity generation increased 28 percent. Oil refiners were successful in producing cleaner gasoline required by the Clean Air Act while the amount of gasoline supply during the 1990's continued a steady increase. Companies such as BP Amoco have even gone beyond the legal requirements, committing to produce the new EPA required low-sulfur clean burning gasoline 3 and 4 years earlier at current prices. Likewise, a number of our automobile manufacturers agreeing to lower their tailpipe emissions earlier.

Why are they doing this? Not just because it is good for the public's health, it is good for the bottom line. It is good for their business.

In pursuing the Nation's public health goals, EPA takes the issue of adequate energy supplies very seriously. Mr. Chairman, my written testimony contains a number of specific examples in which EPA has provided regulatory flexibility in energy supply emergencies and has pursued specific actions to reduce peak energy use. In addition, we work with industry and other stakeholders to craft flexible rules that allow for common-sense, for cost-effective compliance strategies. Let me just share with you one or two examples.

Last year, the President announced our new tier II tailpipe emissions standards and low-sulfur gasoline requirements. These are reasonable, they are flexible, they are cost-effective. The rule gives refiners substantial lead time, on the order of 4 to 5 years. For most refiners the phase-in begins in 2004 and continues through 2006. Small refiners get until 2008, and can apply for some addi-

tional time if they can demonstrate a need. Flexibility is also provided through annual averaging and trading of credits among refiners, and credits for early reductions. There is a phase-in program for gasoline sold in certain western States. Again, demonstrating that you can both set and meet tough public health standards and provide flexibility to industry in order to meet those standards in a cost-effective manner.

We are also promoting a flexible approach for achieving required NOx reductions in the eastern part of the country. These are the NOx that travels, that contributes to the regional ozone pollution problems. To further assure reliability, EPA is allowing States to use a credit trading program. We are encouraging them. We would ask Congress to give us some more authority so we can do that more expeditiously. But in the meantime, we are working with States to use what we have learned from the very successful, very cost-effective acid rain emissions credit trading program and bring that to bear on NOx and other air pollutants.

Mr. Chairman, members of this committee, no one is saying that public health protections, pollution reductions are without cost. But reducing pollution is an invaluable investment in the health of our citizens and our environment. Time and time again, our air regulations we have been able to show the benefits far outweigh the cost.

For example, the new tailpipe emission cleaner fuel requirements, it is as if we are taking 164 million cars off the road. But they are going to be there, each and every one of them. They are just going to be cleaner, they are going to be polluting less. When we look at the cost of meeting those standards, we estimate that for every \$5 invested, we will get \$25 back in environmental and health benefits for our families. We estimate that the acid rain program in the 2010 will have \$48 billion in health benefits from reduced particle matters. We are talking about the particles that become embedded in the lungs, particularly of our senior citizens, they can't spit them out, they can't cough them up, it can result in premature death.

In 1999, EPA completed an extensive congressionally mandated analysis of the cost and benefits of the Clean Air Act of 1990. Although, obviously, any such analysis involves all of the normal economic uncertainties, the central finding is that the benefits of that act, as we have worked to implement that important piece of legislation, have exceeded the cost of meeting environmental standards by a ratio of 4 to 1.

Mr. Chairman, if I might just in my time remaining highlight some of the opportunities that I believe are available to this Congress to help address energy supply issues.

Energy efficiency. Since 1992, EPA and DOE's Energy Star programs have been helping businesses and families select energy-efficient products that save money on energy bills while also helping to conserve energy supplies and reduce air pollution at peak periods. Our Energy Star program has eliminated the need for almost 10,000 megawatts of peak summer generating capacity—10,000 megawatts—through energy efficiency. We have also through this program saved businesses and consumers more than \$4 billion on their energy bills, and we have reduced air pollution.

Now Congress has the opportunity to fund this program. Unfortunately, neither the House nor the Senate in the EPA appropriations bill has thus far provided the dollars to EPA which the President has requested—a \$124 million increase for technologies, for programs like Energy Star. And both the House and the Senate thus far have failed to fund this incredibly cost-effective, sensible, reasonable program.

If Congress had fully funded past requests for EPA's Energy Star programs, electricity demand this summer could have been up to 3,000 megawatts lower than it is currently, equivalent to the power output of more than 10 average sized powerplants.

Congress also has the opportunity to promote energy efficiency by supporting the President's request for \$85 million for a new Clean Air Partnership Fund. This has not been included in our appropriations bill thus far. This is an initiative that would provide much needed dollars to State and local governments to work with their businesses to develop innovative energy efficiency strategies such as investments in clean distributed power sources that do not harm the air their citizens breathe, but do increase power supply.

In addition, Mr. Chairman, I would like to renew the administration's call for Congress to expeditiously send to the President comprehensive legislation to phaseout the fuel additive MTBE from our cleaner burning gasoline. In June 1999, Mr. Chairman, EPA's Blue Ribbon Panel concluded that MTBE poses risks to our drinking water. EPA believes that Americans deserve both clean air and clean water and never one at the expense of the other.

We are encouraged, the administration, EPA is encouraged that the Senate Environment and Public Works Committee has taken action on a bill that is consistent with the legislative principles that we put forward earlier this year. The current oxygenate requirements in the Clean Air Act should be replaced by a flexible renewable fuel standards. This would allow all of us to work together to promote the use of ethanol, to do what we can to drive the market for biofuels, for biomass. We have tremendous opportunity—rice straw, wood waste, other biomass. That can become an important part of our energy supply in this country. This legislation would not only protect water quality, it is good environmental policy, it is good energy policy, it is good foreign policy.

In closing, Mr. Chairman, we recognize that fuels, electric power, clean air are important to economic well-being and the health of the American people. We look forward to working with all Members to move forward, as we have done in the past, to continue to set the strong public health environmental standards that the citizens of this country demand, to do it in common-sense, flexible manners.

Mr. Chairman, if I might, several points have been raised by you, several points were raised yesterday. I look forward to sharing with this committee the rest of the story. I am sure it is important to all of us that we have a full record of exactly what has happened so that as we move forward we do so with a base of knowledge. Thank you again for the opportunity to be here.

[The prepared statement of Ms. Browner follows:]

**TESTIMONY OF
CAROL M. BROWNER
ADMINISTRATOR
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
COMMITTEE ON GOVERNMENT REFORM
U.S. HOUSE OF REPRESENTATIVES**

September 21, 2000

Thank you, Mr. Chairman and Members of the Committee, for the invitation to appear here today. The Administration and the Environmental Protection Agency (EPA) welcome the opportunity to address the issue of energy and the protection of our environment.

The American public deserves an adequate energy supply and a high standard of environmental protection. Both are clearly achievable. The Clinton Administration has excelled in ensuring both environmental improvement and superior sustained economic growth.

The Clean Air Act is one of this country's most important environmental statutes, especially as strengthened by Congress in 1990 in a law signed by then President Bush. This Administration has aggressively implemented the Act to protect public health, and has done so in a sensible way. Even in the face of impressive economic growth, pollution reductions are occurring and we are finding ways to use energy more efficiently and cleanly.

Although we've been vigilant in protecting public health, we've done so in reasonable ways so that the economy has grown. For example, over the past decade the nation's gross domestic product increased 32 percent and vehicle miles traveled increased 30 percent -- while aggregate emissions of six primary air pollutants decreased 9 percent.

More important than these impressive numbers is the human health story associated with reductions in air pollution. Upon full implementation of the Clean Air Act Amendments of 1990, the central estimates in a peer-reviewed EPA study of the annual benefits to the nation will

include: 23,000 fewer incidences of premature mortality; 67,000 fewer cases of chronic and acute bronchitis; 64,000 fewer respiratory and cardiovascular hospital admissions; and 1.7 million fewer asthma attacks. No one can disagree that the benefits of the Act have clearly outweighed the costs.

Communities across the country have benefitted from cleaner air. Since 1990, an unprecedented number of cities have met the health-based national ambient air quality standards. For example, of the 42 carbon monoxide (CO) areas designated as nonattainment in 1991, only 6 areas continue to experience unhealthy levels of CO, which contributes to heart pain, or angina.

Energy production and use are major sources of air pollution and its resulting health and environmental effects. The burning of fossil fuels ranging from coal to diesel fuel is a major source of air pollution. In 1998, for example, electric utilities emitted 67% of the nation's sulfur dioxide (SO₂) emissions and 25% of the nitrogen oxide (NO_x) emissions. Both of these pollutants are damaging to public health and the environment. Sulfur dioxide is responsible for adverse health effects including breathing and respiratory symptoms, damaged lung tissue, and aggravation of existing respiratory and cardiovascular diseases. Nitrogen dioxide (NO₂) contributes to increased respiratory illness in children, aggravated asthma, and increased susceptibility to respiratory infections, for example. Both of these pollutants contribute to acid rain, crop damage, and decreased visibility to name but a few of the adverse impacts on our environment.

In addition to providing health benefits and a cleaner environment, a positive economic byproduct of our environmental progress has been the tremendous improvements in environmental protection technology – improvements in removing pollution from the air and water and at a lower cost.

The U.S. electricity generating sector has helped develop and been the beneficiary of reduced clean air technology costs and higher environmental performance for the past two decades. For example prior to 1980, dry scrubbers for power plants (flue gas desulfurization) generally achieved a 70% reduction in SO₂ emissions. Post-1990 wet scrubbers routinely achieve a 95% reduction in SO₂ emissions. The cost of cleaning the air has been going down as well. In Phase I of the Acid Rain Program, the average capital cost for scrubber installation was as high as \$361/KW. The initial costs for installation of a scrubber under Phase II are as low as \$100/KW.

At EPA, we are acting to ensure that efficient energy markets are also environmentally sound. Increasing the supplies of natural gas, oil, and electricity are not the only ways that Congress can help meet the energy needs of American families and businesses. If we use the energy we have more efficiently, and if we use cleaner renewable energy sources like wind, solar, and biomass, then we can achieve tremendous benefits to the environment even as we fuel the growing energy needs of our economy. Clean energy and energy efficiency have always been an important part of the Administration's energy policy.

Since 1992, EPA and DOE's Energy Star programs have been helping businesses and families select energy-efficient products that save money on energy bills while also helping to conserve energy supplies and reduce air pollution. A typical family can save up to \$400 on their annual energy bills by choosing Energy Star products. New Energy Star gas furnaces, for example, can reduce a family's heating bill by 25-40% compared to old furnaces.

In the summer, Energy Star air conditioners, heat pumps and appliances help reduce the strain on the power system during heat waves. Reducing peak electricity demand on hot summer days not only helps prevent power disruptions, it also prevents additional air pollution from

power plants on likely ozone alert days, protecting the health of children and other vulnerable groups.

The Energy Star programs have already had a sizable impact in reducing the nation's peak power demand. Energy Star has eliminated the need for over 10,000 megawatts of peak summer generating capacity (which is about half the total peak demand in New England) while saving businesses and consumers more than \$4 billion on this year's energy bills and also reducing air pollution.

Unfortunately, Congress' failure to fully fund the Energy Star partnerships has prevented EPA from making further reductions in peak electricity demand that would have improved the reliability of the power system. If Congress had fully funded the Administration's requests for EPA's Energy Star Programs over the past several years, electricity demand this summer could have been up to 3,000 megawatts lower than it is currently, equivalent to the power output of more than 10 average-size power plants.

Congress has also failed to provide funding for the Clean Air Partnership Fund, which would provide resources for state and local governments to work with businesses to develop innovative energy efficiency strategies such as investments in clean distributed power sources that increase the nation's power supply.

Once again, both the House and Senate Appropriations bills for 2001 fail to fully fund the Energy Star program, and failed to provide any funding at all for the Clean Air Partnership Fund. The President remains committed to these programs, and I urge Congress to join us in taking an important step for improving power reliability for the future. If Congress fully funds the Administration's request for the Energy Star Programs, then -- over the next decade -- families and businesses could save an additional \$35 billion on their energy bills while conserving

enough electricity to light 40 million homes in America. These investments would result in a reduction of 850,000 tons of NO_x over the next decade.

Let me also note that the President's electric utility restructuring proposal, which Congress has failed to enact, contains strong policy initiatives to promote energy efficiency and renewable energy. The proposal includes a renewable energy portfolio standard to increase the use of electricity from renewable sources to at least 7.5 percent of sales by 2010; a \$3 billion per year Public Benefits Fund to spur greater investment in energy efficiency and renewable energy technologies; and a green labeling requirement to inform consumers about clean energy options.

Let me turn to the issue of regulations, and why EPA firmly believes that a reliable energy supply and protective environmental regulations can work together. While environmental protection does add to the cost of our energy supply, it cannot be considered the dominant driver in terms of energy prices or supply. The role of the price of crude oil remains the dominant factor affecting the gasoline and home heating oil price rises.

Let me assure you that the Environmental Protection Agency takes the issue of adequate energy supplies very seriously. I recognize that reliable supplies of electric power, home heating oil, and natural gas are all critical for the continued welfare of America's families. Where EPA and the Administration believe a forthcoming regulation may complicate an energy market, we have acted with foresight to incorporate appropriate flexibility into environmental regulations while maintaining the strongest protection of U.S. human health and the environment.

When developing regulations, we fully consider the impacts their timing may have on maintaining adequate energy supplies, and include provisions to provide flexibility and sufficient lead time. For example, concern has been expressed about the feasibility of electricity generators to comply with regional strategies to reduce emissions of ozone-forming chemicals (NO_x). SIP call

and Section 126 petitions). The programs, which affect large industrial and electrical combustion units, use a cap-and-trade mechanism to achieve the required reductions in a flexible and cost-effective manner. EPA's analysis shows that it is technologically feasible to install the appropriate pollution control technologies to comply with the recent NO_x reduction regulations under the NO_x SIP call, without creating electricity reliability problems. There is considerable flexibility in the system. Nevertheless, to further assure reliability, EPA is allowing states to have a supplemental pool of credits – including credits for early reductions – to assist those facilities that experience unexpected problems.

We have also worked closely with industry and other stakeholders to design the Tier II automobile tailpipe standards and low-sulfur gasoline rule to be reasonable, flexible and cost-effective. To avoid supply problems, the rule gives refiners substantial lead time to produce low-sulfur gasoline. For most refiners, requirements phase in between 2004 and 2006, and qualifying small refiners will have additional flexibility through 2008. The rule provides compliance flexibility through annual averaging and trading of credits among refineries, and provides credits for early reductions. Also included are an extreme economic hardship provision and a special phase-in program for gasoline sold in certain western states.

Also, when faced with potential emergencies, EPA has worked closely with the Department of Energy to identify and pursue opportunities to temporarily increase energy supplies while protecting public health. To help avert electric power shortages, EPA has worked with states, utilities, regulators, and businesses to promote voluntary reductions of electricity use on peak energy use days. For example, because power outages usually occur during heat waves that cause "ozone alerts," EPA Regions have been prepared to incorporate public service

messages on reducing and shifting electricity demand into our existing public advisories about steps to reduce pollution.

EPA has also worked to improve flexibility in environmental regulations to achieve enhanced energy supply during emergencies in ways that maintain environmental protection. For example, in response to this summer's power shortages in California, EPA extended the federal permit flexibility that had already been given to emergency backup generators to allow them to operate in limited circumstances whenever possible to avert blackouts. Similarly, EPA is prepared to work this fall with Northeast states that wish to improve the flexibility of their regulations on the sulfur content of fuel oil, even though these state regulations have been in effect since the 1970's and are not the cause of potential fuel shortages this winter.

EPA will not stand in the way of allowing the energy sector to grow and change to match the dynamic needs of our economy. We are seeing major re-tooling of existing power plants (including the installation of new combined-cycle natural gas-fired turbines) and the proposed construction of many new greenfield plants. For example, New England currently has a capacity of about 25,000 megawatts, but there are about 31,000 megawatts of new capacity being proposed in New England. In the last three years alone, New England states and EPA have successfully issued air quality permits for 18 such plants.

The construction of these new, cleaner and competitive power plants in New England is a triple win for the environment, the energy sector, and the economy as a whole. The new plants will reduce dependence on older, dirtier and less reliable plants. The New England states have been issuing permits with tight emission limits, set at a tiny fraction of the emission rates from existing coal and oil plants: 1/200th the SO_x emissions, 1/40th the NO_x emissions, and 1/2 the CO₂ emissions.

Another example of permit assistance is the Alaska Permit-by-Rules Project. EPA Region 10 has been working with the State of Alaska and the oil and gas industry to streamline the air permitting processes for portable drill rigs in order to minimize the time it takes to get permits to drill or maintain wells in Alaska. This project is intended to create an innovative air permitting rule specifically applicable to portable equipment that will enhance the industry's ability to maintain the existing oil and gas production on the North Slope and other areas of Alaska.

EPA often acts proactively to avoid economic and energy disruptions. For example, just this past August, EPA signed an Administrative Order (AO) on Consent with Avista Corporation, relating to two natural gas and fuel oil turbines in Spokane, Washington. The AO was issued to allow Avista to operate in excess of permit limits for 30 days in order to supply electricity for the locally vital Bellingham Cold Storage (BCS) in Bellingham, Washington. Without the flexibility, this facility was faced with closing which would have reduced agricultural produce cold storage capacity in western Washington State by 40 percent.

We firmly believe that the Administration and Congress, acting together, can address current challenges to the energy sector of the economy, while maintaining public health protections. The Administration has proposed a number of initiatives over the years that may be worth a second look at this key time. Since 1993, the Congress has approved only 12 percent of the increases the President has proposed to develop clean, efficient sources of energy. Included in these proposals is comprehensive legislation to foster a new era of competition in the electricity industry. By allowing consumers all across our country to choose their own electricity supplier, we could enhance the reliability of electric power and save consumers nearly

\$20 billion a year in energy costs. Energy savings of that magnitude deserve renewed consideration.

In conclusion, whether it is spurring the ingenuity of American business, investing in cleaner technologies, providing the cleanest burning fuels and vehicles for our transportation needs, or helping American families reduce their energy bills, we firmly believe in the need to protect the environment while at the same time ensuring that environmental policies are consistent with economic progress and sound energy policy. We can and must do this working with Congress and the energy industry to ensure environmental protection and affordable energy supply to the citizens of this country.

Thank you. I would be happy to answer any questions that you may have.

Mr. BURTON. Mr. Hoecker.

**STATEMENT OF JAMES J. HOECKER, CHAIRMAN, FEDERAL
ENERGY REGULATORY COMMISSION**

Mr. HOECKER. Thank you, Mr. Chairman, Congressman Waxman, and members of the committee. I want to express my thanks for inviting an energy regulatory perspective to this hearing today. And I commend you for holding it. It is timely and there is a clear need to publicly examine the current price to consumers, the various forms of energy, and how we ought to respond to those prices through markets, technology, and public policy.

I have spent much of the past several weeks testifying at or conducting hearings on the challenges we as a Nation face in this area. We have heard stories of genuine hardship coming from high electricity prices in California, and the expectation that the price of natural gas will stretch the budgets of many households and businesses this winter.

Yesterday I was in Ohio with Governor Taft and Alaska Governor Knowles discussing the causes and probable results of the gas deliverability squeeze. In that case, many of the experts present, me included, stated their belief that natural gas reserves were adequate and that gas markets were capable of responding to stabilize natural gas prices at lower levels over the next year. I should note for the committee that gas markets have produced almost \$200 billion in savings for the American consumer since 1985, and I expect this to continue.

Electricity markets pose a different set of issues for regulators and other public policymakers. That industry is undergoing a fundamental transition at the moment. It was clear in our hearings in California that the electricity market there was dramatically out of synch with the needs of the digital economy, the expectations of public policymakers, and, most importantly, the economic well-being of average electricity customers in that State, and in San Diego, in particular.

The causes and proposed solutions are complex and they include the dramatic surge in demand growth in California. But it has become clear that the California electricity markets are not competitive during periods of peak demand, and that the efforts of State and Federal Governments and even private corporations to anticipate and avoid this crisis have simply proven inadequate. There is plenty of responsibility for this market and its prices to go around.

The FERC, which oversees the wholesale portion of all domestic markets including California's, has been aggressively investigating the problem and looking for appropriate solutions. If that means devising new ways to thwart market power, we will try to do that. If that means changing market rules and wholesale market structures, then we will do that. If it means imposing stricter controls on the ability of utilities or generators to collect market rates, then we will do that. And if it means making rates subject to refund until we can be reasonably confident Californians will get price signals instead of price shocks, then the Commission is likely to move in that direction.

In the meantime, we have in effect capped wholesale markets in that State. The State of California has fortunately also lifted its re-

strictions on the ability of utilities to hedge in the market when they buy power, and has adopted legislation to get retail rates back to normal levels and to expedite the siting of new generation facilities.

I want to assure the committee that the FERC is, indeed, pursuing a consistent energy policy. It is, in fact, spelled out in our strategic plan, within the limits of our jurisdiction and within the limits of our role as an independent regulatory agency. The Commission has for many years promoted competitive energy markets. Some call this deregulation. I don't happen to be one of them. I agree with Congressman Kucinich that there are indeed limits to what free market approaches can obtain. But having said that, lighter-handed regulation of energy markets is part of our approach. Monitoring markets to ensure they are competitive, efficient, and fair is another element. A third component is to ensure adequate energy infrastructure, such as natural gas pipelines, consistent with sound environmental practices and environmental law.

We believe that this is a recipe for stable prices and energy security in the long-run. Today, Mr. Chairman, I believe that the FERC is doing all it can.

However, we need Congress' help. I have long advocated restructuring legislation that would untie our hands in promoting sound electricity markets. My recommendations would provide: First, that FERC have jurisdiction over all electric transmission in the country. We do not currently.

Second, that FERC have oversight of electric reliability. We right now have no such authority.

Third, that we have expressed authority to promote regional transmission organizations to govern the operation of the bulk power market.

Fourth, we want broader FERC authority to remedy market power abuses in energy markets. Currently, that authority is limited.

To that list I might now add additional FERC authority to retroactively correct extraordinary wealth transfers that can happen when prices unexpectedly skyrocket and consumers cannot get out of the way. We right now do not have that authority either.

Mr. Chairman, I want to thank you again for inviting me here today. I will be happy to try and field your questions.

[The prepared statement of Mr. Hoecker follows:]

\$20 billion a year in energy costs. Energy savings of that magnitude deserve renewed consideration.

In conclusion, whether it is spurring the ingenuity of American business, investing in cleaner technologies, providing the cleanest burning fuels and vehicles for our transportation needs, or helping American families reduce their energy bills, we firmly believe in the need to protect the environment while at the same time ensuring that environmental policies are consistent with economic progress and sound energy policy. We can and must do this working with Congress and the energy industry to ensure environmental protection and affordable energy supply to the citizens of this country.

Thank you. I would be happy to answer any questions that you may have.

**Summary of Testimony of
Chairman James J. Hoecker
Federal Energy Regulatory Commission
before the
Committee on Government Reform
United States House of Representatives
September 21, 2000**

Over two decades ago, Congress and the Commission began encouraging the development of competition in the natural gas industry and then the electric industry. As a result of these efforts, today's natural gas commodity markets are competitive. This competition has produced substantial benefits for consumers. The recent increases in natural gas prices should not weaken support for competitive market policies. The price increases have already prompted more drilling, and these efforts will increase the supply of natural gas and help restore a better balance of supply and demand.

Competition in bulk power markets is not yet as developed as competition in natural gas markets. Competitive wholesale electricity prices in California this summer have been particularly volatile. A number of possible causes for the sharp price increases are commonly cited. Among these are rising demand for electricity, not enough new generating facilities, unusually hot weather over a large region, inefficient market rules and market structures, and, according to some observers, collusion or other anticompetitive behavior by generators.

In response to events in California and other parts of the country, the Commission directed its staff to investigate conditions in bulk power markets and report its findings to the Commission by November 1, 2000. More recently, I have asked staff to accelerate its investigation as it relates to California and Western markets. In addition, the Commission has opened a formal investigation into California's wholesale markets, which will allow the Commission to take steps within its jurisdiction to address identified market problems.

Going forward, the Commission's overall goal is to help meet the Nation's needs for reliable and reasonably priced energy by establishing a fair, open and efficient regulatory foundation for competition in energy markets. Congress can help by enacting electricity legislation. This legislation should provide for comparable and open access to all transmission facilities, regional transmission organizations, mandatory reliability rules, and tools for remedying market power.

**Testimony of
Chairman James J. Hoecker
Federal Energy Regulatory Commission
before the
Committee on Government Reform
United States House of Representatives**

September 21, 2000

Mr. Chairman and Members of the Subcommittee:

Good morning. I am James J. Hoecker, Chairman of the Federal Energy Regulatory Commission (Commission). Thank you for inviting me to participate in today's hearing on the cost of energy, which is a matter of great importance to American consumers and the growing digital economy.

The Commission has long been promoting competition in the key markets it regulates – wholesale electric energy and natural gas markets – to foster a more efficient energy industry and to bring energy consumers reliable energy at the lowest reasonable cost. Our goal has been to rely on competition where competition can work and bring benefits to consumers in the long-run. However, we continue to regulate rates and terms of access for essential transportation and transmission services, monitor the wholesale markets we regulate and, where necessary, apply traditional or other appropriate regulation to curb market power and ensure consumer protection.

Today, my testimony will first describe the scope of the Commission's general regulatory authorities. I will describe briefly the state of the wholesale natural gas and electricity markets. I will focus primarily on recent electric price volatility and electric

competition issues, particularly recent events in California, and what we are doing about them. Finally, I will briefly discuss legislative reforms that are necessary to ensure competition and consumer protection in the electric energy markets.

I. The Commission's Regulatory Responsibilities

The Commission is a five-member independent regulatory agency, which succeeded to the regulatory responsibilities of the Federal Power Commission in 1977. The Commission's responsibilities include the licensing of non-Federal hydroelectric facilities, the certification of natural gas pipelines, regulating the rates of natural gas pipelines and pipelines transporting crude oil and oil products, and regulating the rates and other aspects of electric utility activities. (See Appendix A for summary of key FERC responsibilities.)

Hydropower is the oldest area of Commission jurisdiction. The Commission's predecessor began Federal regulation of non-Federal hydroelectric generation in 1920, authorizing the construction of projects in interstate commerce and overseeing their operation and safety. The Commission now regulates 2,000 dams that generate over five percent of all electric power in the United States.

Since 1935, the Commission has regulated certain electric utility activities under the Federal Power Act (FPA). Under FPA Sections 205 and 206, the Commission oversees the rates, terms and conditions of sales for resale of electric energy and transmission service in interstate commerce by public utilities. The Commission must

ensure that those rates, terms and conditions are just and reasonable, and not unduly discriminatory or preferential. Under FPA Section 203, the Commission reviews mergers and other asset transfers involving public utilities. The utilities regulated under FPA sections 203, 205 and 206 are primarily investor-owned utilities; government-owned utilities (such as TVA, the federal power marketing agencies, and municipal utilities) and most cooperatively-owned utilities are not subject to the Commission's regulation, with certain exceptions.

The Commission may not regulate retail sales or local distribution of electricity. These are matters left to the States by the FPA. Nor does the Commission have a role in authorizing the construction of new generation facilities (other than non-Federal hydroelectric facilities) or transmission facilities. These too are State or local responsibilities.

The Commission's role in the natural gas industry is largely defined by the Natural Gas Act of 1938 (NGA). Under the NGA, the Commission regulates the construction of new natural gas pipelines and related facilities and oversees the rates, terms and conditions of sales for resale and transportation of natural gas in interstate commerce. Pipeline siting and construction is authorized by the Commission if found to be required by the public convenience and necessity. As with hydropower licensing, the Commission's actions on pipeline projects typically require consideration of factors under the National Environmental Policy Act, the Endangered Species Act, the Fish and

Wildlife Coordination Act, the Coastal Zone Management Act and other such legislation.

The wellhead price of natural gas, which the Commission previously regulated, was gradually deregulated by Congress beginning with the Natural Gas Policy Act of 1978 (NGPA). All wellhead price controls on natural gas ended on January 1, 1993.

Regulation of retail sales and local distribution of natural gas are matters left to the States.

Finally, the Interstate Commerce Act gives the Commission jurisdiction over the rates, terms and conditions of transportation services provided by interstate oil pipelines. The Commission has no authority over the construction of new oil pipelines, or over other aspects of the industry such as production, refining or wholesale or retail sales of oil.

II. The Development of Competition in the Natural Gas and Electric Industries

Congress gave the Commission its rate regulation responsibilities with the fundamental objective of protecting consumers from abuses of market power.

Historically, the Commission relied on cost-based rates to meet this goal. However, the success of pro-competition policies in other infrastructure industries (e.g., trucking, railroads, airlines, long-distance telephone) demonstrated that economic efficiency and consumer interests sometimes could be better served by effective competition than by traditional cost-of-service regulation. As a result, Congress and the Commission began

encouraging the development of competition in the natural gas industry and later in the electric industry.

A. Natural Gas

In 1978, the NGPA began the process of decontrolling natural gas commodity prices. In the face of a critical supply shortage, Congress opted to encourage market forces to play a more significant role in determining supply, demand, and price of natural gas. In 1985, because the Commission believed that pipeline transportation problems were preventing consumers from seeing the benefits of wellhead decontrol, the Commission issued Order No. 436. This was the first order to institute open access and non-discriminatory transportation across a major energy delivery infrastructure. Open access pipelines had to allow gas buyers to purchase gas directly from production area sellers and to obtain transportation services on the same non-discriminatory basis as the pipeline companies served themselves.

In 1992, the Commission completed its open access transportation initiative by requiring interstate pipelines to exit the natural gas sales, or "merchant," business. This effectively separated the transportation of gas from the sale of gas and removed both the opportunity and incentive to discriminate among shippers or sources of supply. The Commission also required pipelines to permit firm shippers to resell their unused pipeline capacity rights (called "capacity release"), creating a valuable and efficient secondary transportation market. Congress ended all wellhead price controls as of January 1, 1993.

During all of these changes, the Commission further supported the development of competition and worked to ensure the adequacy of the transportation infrastructure by authorizing proposed construction of new natural gas pipelines in appropriate circumstances. From 1995 to 1999, for example, the Commission approved over 8,000 miles of pipeline projects. Since 1997, the Commission has authorized the addition of almost 17 billion cubic feet per day (Bcf/day) of new delivery capability to the pipeline network. These facilities represent an investment of over \$7.5 billion in natural gas transportation infrastructure. In light of probable demand growth for natural gas, the Commission continues to receive new proposals for pipeline development. I would note that the modern pipeline certificate process is characterized by heightened landowner concerns, environmental issues, and debates over regional needs for pipeline additions. Thus, the Commission carefully considers these factors in making its determination of whether a given proposal is in the public convenience and necessity.

B. Electricity

Growth of competition in today's electricity markets began with the implementation of the Public Utility Regulatory Policies Act of 1978 (PURPA), which encouraged development of renewable energy sources and cogeneration. This law opened the door to competition by facilitating the first significant entry of non-utilities into the generation business. Non-utility generators soon showed that they could build and operate power plants as well as, or better than, the existing vertically-integrated

electric utilities. The PURPA experience made clear that there was no "natural monopoly" for electricity generation. Soon, other independent power producers began to build power plants even without the help of PURPA, as traditional utilities became more risk averse. In addition, independent power marketers, which did not own physical facilities, entered the electric industry and began selling power at wholesale. The Commission recognized that these new entrants to the wholesale electricity markets lacked market power and began authorizing them to sell wholesale power at market-based rates. Since then, the Commission has authorized such rates for hundreds of wholesale sellers shown to lack market power. The presence in the market of these generators, which were not built only to serve a specific "load" or group of customers, expanded the size and importance of the wholesale or "bulk" power market.

In the Energy Policy Act of 1992 (EPAct), Congress endorsed expanded transmission access and competition in wholesale power markets. It enhanced the Commission's authority to require utilities to provide transmission services on a case-by-case basis for others. Non-discriminatory transmission access is key to competition because it allows buyers and sellers to reach one another over the interstate transmission highway. EPAct also authorized exemptions from certain legal restrictions under the Public Utility Holding Company Act for generators selling exclusively at wholesale. This legislation, as implemented by the Commission, helped to expand the trading opportunities of wholesale buyers and sellers.

In 1996, the Commission adopted Order No. 888, requiring open (i.e., available to all wholesale customers) and non-discriminatory access to the transmission facilities of public utilities. Open access dramatically enhanced the ability of wholesale buyers and sellers to transact with each other, giving market participants many more trading opportunities. This is a strategy similar to the one pursued by the Commission for natural gas pipelines.

Finally, having found that certain structural attributes of the industry still inhibited competition, the Commission adopted Order No. 2000 last year. This order addressed remaining industry problems by encouraging transmission-owning utilities to form regional transmission organizations, or "RTOs." An RTO is an electric transmission system operator that is completely independent from power market participants and is responsible for providing reliable, efficient and non-discriminatory transmission service in an entire region. If properly constituted and truly independent, RTOs can help address and eliminate remaining obstacles to competition and make the markets more efficient, for the benefit of electricity consumers in all states. RTOs will promote wholesale competition and, where states allow it, they will facilitate retail competition. However, because the FPA does not mention RTOs, some question the Commission's authority to mandate their formation and the Commission has therefore tried to promote RTO formation through voluntary utility efforts. We will soon know whether this voluntary approach will be successful.

III. State of Wholesale Markets Today

A. Natural Gas Markets

Today, natural gas commodity markets are competitive. There is truly a continental natural gas market in North America. Reserve prospects are very promising. However, production, transportation, and distribution capabilities will be tested by the significant annual demand growth -- from 21 trillion cubic feet (Tcf) today to 30-35 Tcf in 2015. A sizeable portion of the increase will come from gas-fired electric generation. In the current market, natural gas buyers are no longer limited to buying from one or two pipelines and instead have a wide range of supply options that can be reached through various pipeline transportation options, including capacity release or at market hubs. In addition, an active financial market has developed to allow buyers and sellers of natural gas to hedge against future increases in natural gas prices.

This competition has produced substantial benefits for consumers. Retail gas prices, for example, declined by 42 percent in inflation-adjusted dollars from 1984 to 1994. If gas prices had remained at 1984 levels, consumers would have paid \$50-60 billion more for gas in 1995.

Spot wellhead prices for natural gas have roughly doubled over the last year. The wellhead price has averaged over \$4.00 per thousand cubic feet since June. (EIA Short-Term Energy Outlook, September 2000.) However, transportation access has made the commodity market liquid and efficient and, despite recent price increases, consumers are

still saving money compared to pre-competitive prices. For example, according to one analysis of EIA data, wellhead prices have declined from \$4.10/MMBtu in 1983 to \$3.13/MMBtu today, in 1998 inflation-adjusted dollars. Moreover, recent wellhead price increases have already prompted a market response by producers to increase the supply of natural gas. The number of natural gas drilling rigs in use, for example, has more than doubled in the past 15 months. Almost certainly, this recent activity will not be sufficient to increase the supply of natural gas in time to mitigate prices this winter. It will, however, help restore a better balance of supply and demand in the future.

I am confident that the fundamental structure of the natural gas market is sound as evidenced by the dramatic increase in drilling activity in response to market signals. Nevertheless, the Commission will be monitoring the gas supply and price situation very closely this winter to assure that competitive pipeline transportation markets continue to work in the public interest.

B. Wholesale Power Markets

Bulk power markets are not as mature as natural gas markets. As noted above, the transmission provisions of EPAct and Order No. 888 have greatly expanded trading opportunities in wholesale markets, and the Commission's ongoing initiative on regional transmission organizations should further address remaining transmission obstacles to competition. And, as sources of generation become more diverse, market power will further diminish in wholesale power markets.

However, circumstances this year demonstrate the still-developing nature of competition in bulk power markets and the need for continuing vigilance by the Commission. Wholesale prices in California, for example, have increased significantly this year, at least for the summer peak months. Prices in some other parts of the country have also been more volatile than in the past. In addition, retail consumers in some areas have increasingly faced the risk of brownouts or blackouts. In mid-June, for example, thousands of consumers in the San Francisco area lost service during a virtually unprecedented heat wave.

The most dramatic price increases this year have been in California. According to San Diego Gas & Electric Company, for example, wholesale market prices in June and July of 1999 rarely exceeded \$150/megawatt-hour (MWh), while prices for the same period this year exceeded \$250/MWh in 167 hours and \$500/MWh in 59 hours.

Recognizing the need for pro-active steps in California as well as other parts of the country, the Commission in late July directed its staff to investigate the conditions in bulk power markets throughout the country. Staff was told to determine any technical or operational factors, regulatory prohibitions or rules (Federal or State), market or behavioral rules, or other factors affecting the competitive pricing of electric energy or the reliability of service, and to report its findings to the Commission by November 1, 2000. I have asked staff to accelerate its investigation as it relates to California and Western markets because the serious events there warrant special attention to California.

In July of this year, San Diego Gas & Electric Company (SDG&E), which was flowing volatile wholesale power costs through to retail ratepayers, filed a complaint with the Commission, seeking immediate imposition of a price cap of \$250/MWh for all public utility sellers in the California wholesale markets. On August 23, the Commission ruled on this complaint, instituting formal hearing proceedings under FPA section 206 to investigate the justness and reasonableness of the rates of public utility sellers in California. The Commission will also investigate whether the tariffs, contracts, institutional structures, and bylaws of the Independent System Operator (ISO) and Power Exchange (PX), new market institutions created under California statute, are adversely affecting the efficient operation of competitive wholesale power markets in California and need to be modified. By establishing the hearing proceeding in the August 23 order, the Commission will have the ability under the FPA to order refunds, as appropriate, if it finds that rates for sales by public utilities to the ISO or the PX are unjust or unreasonable. The Commission expects its actions and the measures adopted by the State will moderate price volatility in California markets.

Price volatility has also increased in other parts of the country this summer, particularly the Northeast. In response, the Commission has authorized temporary price caps in both New York and New England, at the same level previously authorized for the adjacent PJM market. These regions are another focal point for the investigation being conducted by the Commission's staff.

I cannot prejudge the results of the Commission Staff's investigative work. There are complex questions of fact involved. As a preliminary matter, however, there appears to be a select list of problem areas that command our closest scrutiny. Clearly, the market conditions that may have otherwise caused aberrant prices in California were exacerbated by the demand growth and high temperatures throughout the West, limiting California's ability to import power from neighboring states. Some of the market-specific issues that appear to be affecting prices include:

- o Construction of new generating facilities has not kept pace with rapidly rising electrical demand. According to the California Energy Commission, from 1996 to 1999, demand for electricity in California grew by 5,522 MW, but only 672 MW of new generating facilities were added.
- o State-regulated wholesale buyers have been purchasing most of their power in spot markets, which have seen high prices, instead of purchasing power under long-term contracts or hedging their purchases.
- o Rates for most buyers are averaged over time (for example, a monthly bill based on total electricity used during the month) so that customers have little incentive to reduce their usage during peak hours when electricity costs are highest.
- o There is little competition at the retail level by energy service providers. While many utilities sell power in California's wholesale markets, few compete to sell power directly to retail customers. As a result, those customers are offered few innovative pricing or service options.
- o According to some observers, sellers in California have engaged in collusion or other anticompetitive behavior. These allegations are being investigated.

A combination of these or other factors may have contributed to the problems in California this summer. My preliminary view is that the fundamental issue is an overall

imbalance of supply and demand. When demand increases and supply does not, as it has in California and other places, prices can be expected to go up. Wholesale market rules and structure may have exacerbated the resulting price increases.

The Commission staff is hard at work on completing its fact-finding investigation. Based on the staff report to the Commission, we will be prepared to take further measures, as appropriate, to address the issues we are discussing today. If we need to fix market rules or market structures within our jurisdiction, we will do so. If market power is being exercised, we will respond accordingly, by revoking or modifying market-based rates or reassessing the basis upon which we grant them. We may order refunds to the extent allowed by the FPA, if refunds are justified by record evidence.

However, the FPA defines the boundaries of the Commission's authority, and leaves responsibility for many helpful measures with California (and other States). For example, the California Energy Commission is responsible for authorizing the construction of new generation and transmission facilities in the State. The State also decides whether State-regulated wholesale buyers are restricted to buying in spot markets or are allowed to choose prudently among the full range of wholesale buying opportunities, including long-term contracts and hedges.

IV. Policy Direction for the Future

A. Commission Agenda

Pursuant to the Government Performance and Results Act, the Commission is preparing a strategic plan for fiscal years 2000-05. Our overall goal is to meet the Nation's needs for energy markets and infrastructure through responsive, flexible regulation. To do so, the Commission must ensure benefits for consumers by establishing a fair, open and efficient regulatory foundation for competition in energy markets. Also, we must foster economic and environmental benefits for the Nation through the approval and oversight of energy projects that are in the public interest.

Our draft strategic plan identifies the key strategies that will allow us to achieve these pro-competitive goals. We will continue to regulate essential monopoly facilities such as electric transmission lines and natural gas pipelines. And we will permit market-based pricing of energy only where market power does not exist or has been mitigated. Where market power persists, the Commission may approve other innovative approaches, such as an index or performance-based rates.

We must continue to nurture competitive market institutions. Foremost on the Commission's agenda for the electric industry is to facilitate and encourage the development of RTOs. The Commission also will continue to encourage the development of e-commerce in the energy industries, particularly the Open Access Same-time Information System (OASIS) for posting services available on the electric

transmission grid and electronic bulletin boards (EBBs) for posting services available on the natural gas pipeline grid.

We must continue to monitor and limit the potential anticompetitive effects of corporate consolidation. Mergers of public utilities can create harmful concentrations of market assets that inhibit competition in the market, even though there are also large potential efficiency gains from this kind of reorganization.

Finally, we must facilitate the responsible development of natural gas pipeline capacity to meet the widely-anticipated increases in market demand for natural gas. Most electric generating plants planned for the next five years will use natural gas. Natural gas is a domestically available, clean, and efficient fuel. Continued growth in natural gas consumption requires expanding and enhancing the existing natural gas transportation infrastructure. To respond to this market need, the Commission is committed to timely processing of applications for natural gas pipeline facilities. Recent reports concerning the potential construction of pipeline facilities to transport Alaska North Slope natural gas to consumers presents a significant opportunity to bolster our growing energy economy. As I testified before the Senate Committee on Energy and Natural Resources last week, the Commission is committed to timely resolution of proposed pipeline projects under its jurisdiction, including a reactivated ANGTS (Alaska Natural Gas Transportation System) project.

B. Congressional Action

Congress, too, has a role to play in ensuring that consumers are able to obtain the energy they need at reasonable prices. Most critically, events this summer demonstrate the urgency of enacting electricity legislation to help resolve remaining impediments to competition. Federal restructuring legislation can establish the ground rules that will lead to adequate investment in generation and transmission facilities, and higher levels of reliability which is crucial to the digital economy. I believe Congress should enact legislation that addresses the following elements.

First, Congress should place all electric transmission in the continental United States under the same rules for non-discriminatory open access and comparable service. The Commission's open access rules are not binding on the part of the Nation's transmission system (approximately one-third of all transmission facilities) owned or controlled by entities other than public utilities. Open access over the facilities of public power and other non-public utilities would promote greater competition in wholesale markets, by expanding trading opportunities for wholesale buyers and sellers.

Second, Congress should reinforce the Commission's authority to foster RTOs. RTOs can achieve greater efficiencies in the operation of regional grids and further reduce opportunities for discrimination by transmission providers, and legislation will help ensure that RTOs provide maximum benefits to consumers.

Third, Congress should authorize a means for establishing mandatory reliability rules to protect the operational integrity of the transmission system. I support reliance on a self-regulating organization with appropriate Commission oversight and enforcement. As competition grows throughout the electric industry, reliability legislation is necessary to ensure that the burden and cost of maintaining a reliable electric system is borne fairly by all power providers.

Fourth, Congress should provide the Commission with additional tools to remedy existing market power, which may impair competition to the detriment of consumers. Incumbent utilities or those with strategically placed assets can often control markets unfairly. Currently, the Commission can only address such issues in rate matters or in the context of mergers. The Administration's bill would broaden the Commission's ability to address market power in retail markets, if it were asked to do so by a state that lacks adequate authority to address the problem. The Administration's bill would also give the Commission explicit authority to address market power in wholesale markets by requiring a public utility to file and implement a market power mitigation plan. I believe it would be helpful to close these gaps in the Commission's remedial authorities, especially since the goal of our efforts is to promote market structures that permit light-handed regulation in most respects.

Key Areas of FERC Regulatory Responsibility

Type of Regulation	Investor-owned Electric Power	Interstate Natural Gas Pipelines	Interstate Oil Pipelines	Nonfederal Hydropower Projects
Regulation of Markets and Rates, Terms, and Conditions of Energy Services - Transmission - Sales for Resale - Corporate	Yes Yes Yes	Yes Yes No	Yes No No	N/A N/A N/A
Authorization and Monitoring of Energy Facilities - Siting	No	Yes. The Commission issues certificates for construction of pipelines and related facilities.	No	Yes. The Commission issues licenses, exemptions, and license amendments.
- Environmental	No, except for programmatic EISs for some major actions.	Yes. NEPA review and interagency consultation for pipelines to be certificated.	No	Yes. NEPA review and interagency consultation for the above authorizations.
- Safety	No	No, except as part of initial certification—incorporation of DOT standards.	No	Yes. dam and public safety.

Related Responsibilities of Other Key Agencies		
States	Retail sales; local distribution, siting for generation lines and facilities unbundled retail transmission	Siting
Other Federal Agencies	<p>Retail sales; local distribution, siting for generation lines and facilities unbundled retail transmission</p> <p>DOE: Power Marketing Administrations EPA: air quality licenses NRC: nuclear power licenses USDA: electric cooperatives</p>	<p>Projects that do not affect navigable waters, interstate commerce, or Federal lands or dams</p> <p>DOT: safety</p>
	<p>Retail sales, local distribution, interstate transportation, natural gas production and gathering</p> <p>DOT: safety DOI: siting in offshore waters, federal lands, national parks, endangered species USFS: siting in national forests COE: water body crossings Preservation: cultural resources EPA: PCBs National Marine Fisheries Service: offshore fisheries</p>	<p>DOI: federal lands, national parks, fish and wildlife, endangered species USFS: national forests Advisory Council on Historic Preservation: cultural resources National Marine Fisheries Service: Fisheries resources</p>

Mr. BURTON. Thank you, Mr. Hoecker.

We will now go to our questioning. Let me start off by saying—

Mr. WAXMAN. Mr. Chairman, may I make a request. We were going to have a half-hour each side of the panel. Why don't we do 15 minutes each side of just Mr. Richardson, see if we can accommodate his schedule, and then go back to the other witnesses.

Mr. BURTON. Well, even if we did 15 minutes on each side, we would not be able to get through all of our questions that we have today. I think, because of the time constraints Mr. Richardson is under, we have no option but to have another hearing and to bring him back.

Mr. WAXMAN. Perhaps so. But he is trying to deal with an energy crisis. I think the country would be better off if he were dealing with that than sitting in the hearing answering questions that might be asked now and answered now so he can get on with his job.

Mr. BURTON. Mr. Waxman, there is an election coming up. If you become chairman next year, you can run this committee. But right now, you are not chairman.

Mr. WAXMAN. I gather what is happening is politics to be sure you are chairman.

Mr. BURTON. Mr. Chairman, Mr. Waxman—[laughter]—we would like to get on with the business at hand. Do you have any more comments to slow us down?

Mr. WAXMAN. Mr. Chairman, may I inquire how we are proceeding?

Mr. BURTON. We are proceeding under the regular order.

Mr. WAXMAN. Is that a half-hour each side?

Mr. BURTON. That is absolutely correct.

Mr. WAXMAN. So before Democrats can ask a question, you will go for a half-hour, but then we will have a half-hour.

Mr. BURTON. Mr. Richardson will then depart after their questions.

Mr. WAXMAN. Well is it your hope that he will depart after your questions so we cannot question him?

Mr. BURTON. Regular order.

Mr. WAXMAN. It appears so.

Mr. BURTON. Mr. Richardson, we had 231 oil refineries and it has declined down to 155 oil refineries. You said in your opening statement that we are letting market forces dictate the price of oil. When the oil industry people were here yesterday, they said one of the problems that they have, they are operating at I think 96 percent of capacity right now, and one of the big problems that they have is because they have not been able to build a new oil refinery in the past 25 years. As a result, they are limited in supply they can produce. And they tell me that they can build oil refineries and gas production facilities that will comply with environmental standards and keep the ecology clean, if the restrictions by EPA and the Department of Energy are not so restrictive.

So I would like to ask you and Ms. Browner what we can do to get more refineries in place to make sure that the demand is met?

Secretary RICHARDSON. Mr. Chairman, let me say that our policy is to have a viable refining industry in this country. That's No. 1. A number of small refineries have closed in the past decade—poor

economics and other investment problems. We have asked the National Petroleum Council, which is a group of energy executives, to advise the Department of Energy, me on what we need to do to have a viable refining industry in the country. They are expected to complete a report for us this summer.

Now, it is our view, Mr. Chairman, that our refining capacity right now is at 96 percent. It has gone up. We were concerned because it was in the low 90's, it is now 96, some say a little bit more. Total U.S. refining capacity has been expanding and becoming more economically competitive. So what has happened also is new refining capacity is likely to be at existing refineries along mainly the Gulf Coast. So what we are seeing is refining capacity has been added to existing refineries right now. That is how they have kept pace with demand without building new refineries. Nonetheless, we still are watching this very closely and we are looking forward to the industry's recommendations.

Mr. BURTON. Well, the industry was here yesterday. The indications from the industry was they would like to build new refineries, they would like to increase capacity, and they cannot do it because of environmental regulations. And they are very concerned about that.

The other thing is, and I wish you would put up that natural—

Do you have a comment, incidentally, Ms. Browner, about that?

Ms. BROWNER. I do. I would like to respond, if the allegation is for some reason public health air pollution standards stand in the way of new refineries, I would like to respond.

Mr. BURTON. No, that is not what they said. They said they could build refineries that were environmentally safe—

Ms. BROWNER. But that our rules were a problem.

Mr. BURTON. Yes.

Ms. BROWNER. I would like to respond to that allegation. May I?

Mr. BURTON. All right.

Ms. BROWNER. Thank you. I would like to make three points. One is the same point that Mr. Richardson made, but we would like to actually use a chart. In the last 5 years, while the number of individual refineries, facilities has gone down, the refining capacity of the remaining 155–160 facilities has actually gone up. Part of the reason it is going up is because we work with them to expand their those existing facilities and we do it in an expedited manner, we do it in conjunction with the States.

I will give you an example. There are currently pending 12 permit applications to expand existing refineries, that is over the last 2 year period. Most of those permits, and they are issued by the States with our concurrence, most of those permits have been issued in 12 months. Of the 12 that have been received in the last 2 years, only 5 are currently pending, the others have been granted.

I will give you an example. We received one down in Texas in March 2000. It will be done within the next 2 to 6 weeks. We received another one in July, we have asked for more technical information, we will then be moving forward. So we are moving through the permitting process the expansion that the companies are deciding are best for them.

The final point I would like to make, Mr. Chairman, is we are always open to receive any permit application. We do not decide what the applications should be, that is up to the companies. They do it for a variety of reasons. In the last 25 years, not because of the new Clean Air Act, not because of the old Clean Air Act, but because of their business realities, they have chosen not to apply for any new facility ground up but are rather expanding existing facilities, and we are permitting those with all of the public health protections.

Mr. BURTON. I know. But the argument that they made, Ms. Browner, was that the environmental regulations, that they believe are extraordinary, are such that they cannot do it in a profitable way, and as a result, they have not been able to build those new refineries.

But nevertheless, let me get on to another subject. Would you put up that chart on the gas reserves. The gas companies, the natural gas producers said that their existing wells are producing at lower and lower levels and they cannot meet the demand because those wells are producing at lower levels.

Now we have, as you can see on that map, several very large gas reserves in the continental United States. This is just in the lower 48, this is not showing what we have up in Alaska. But they told us that if they could, and they can in an environmentally clean way, drill these wells and get the oil, they said there is no question that they can do it in an environmentally clean way and meet the demand.

So my question is, why is it we are not drilling wells in those areas which are off limits now because of the EPA?

Ms. BROWNER. I think three of the—

Mr. BURTON. Because of the Interior Department.

Ms. BROWNER. I do not want to answer for Interior. But I do think it would be important to note—and natural gas exploration, not home use of natural gas, residential use of gas, that does not require any EPA permit. We are not involved in that process whatsoever. But exploration of natural gas in some instances may require a water pollution or air pollution permit from EPA.

Mr. Chairman, with all respect, I think three of the areas that you are noting up there, I am having a hard time seeing this, but I think three are actually offshore areas, and those obviously bring with them particular issues of particular concerns, particularly to the citizens of those areas, to the protection of their beaches.

Mr. BURTON. Let me get to Mr. Richardson because I am running out of time, since he is in charge of energy policy.

The large reserve in the middle of the United States, if you excluded the ones that are offshore, according to the people who were here yesterday, would provide a substantial amount of gas over a long period of time, 10–15 years, if we were to drill that. And it can be done in a very safe and environmentally safe way. Why are we not exploring in that area?

Secretary RICHARDSON. Mr. Chairman, a lot of that is public lands, that central area. Let me also mention to you, Mr. Chairman, that statistics for natural gas, we have had increased domestic natural gas drilling. We have I think a total now of domestic drilling rigs are almost 800, the highest level in the last 15 years.

And we have seen a nearly 60 percent increase in the production of natural gas on Federal onshore land since 1992. I don't know if the map reflects that. We did open the natural petroleum reserve in Alaska to gas development where we have 10 trillion cubic feet. No, it is not on the map.

Oil production on Indian lands accounted for 25 percent of domestic production in 1999. But on natural gas, Mr. Chairman, what happens is supply and demand dictate production levels.

Mr. BURTON. Let me just interrupt, because the gas producers yesterday said that, and Mr. Hoecker may want to answer this too, they said that they have their pipelines full at the present time, I think 96 percent. They are concerned about additional pipelines, No. 1; and No. 2, also getting more productive gas wells.

They say that the source is there. There is definitely a source of gas. They could do it more efficiently. They said that more wells could be drilled; 800 rigs out there right now simply isn't going to meet the demand. There are more wells that can be drilled. They want to know why, and I do too, if this can be done environmentally safely, we are not doing it. So if you and Mr. Hoecker could answer that, I think I am just about out of time.

Secretary RICHARDSON. Mr. Chairman, let me just add on natural gas, we have also proposed in the President's package a tax credit for natural gas drilling, it is called "geologic expensing," which allows for better ability for the natural gas people to drill. We think this is very important.

Mr. BURTON. Mr. Hoecker.

Mr. HOECKER. Mr. Chairman, that is a very accurate portrayal of the amount of reserves we have, and in Alaska there is another at least 35 trillion cubic feet of gas but no way to get it to the lower 48 except through some limited LNG facilities. Currently, we have a deliverability problem, however. When prices collapsed a couple of years ago a lot of people left the oil and gas production business, a lot of wells were shut in, and production declined. It was a response to a variety of things that you can trace back to the collapse of the Asian economy. But what that has meant is that we have been using up that supply of cheap gas and have had very little to replace it.

Now with gas prices escalating above \$3, as the Secretary mentioned, there has been a dramatic increase in exploration, development. But there is a lag time of about 12 to 18 months. I do not think that most interstate natural gas transmission systems are full now, unless it means in the wintertime when they are taking a lot of supplies out of storage. I think the situation is going to normalize itself, but the situation we are in today is the direct result of the price collapse a couple of years ago and it is taking the gas industry some time to recover.

Mr. BURTON. Mr. Shays.

Mr. SHAYS. Thank you. Welcome, all of you. I am somewhat reluctant getting into this issue because, if we are honest with each other, it is Republicans and Democrats who are in this together and both share blame. The administration shares blame, and Congress obviously has things it can do.

But as we do our specific issues, I am just interested to know, the Energy Department, which does not have other distractions, I

am just interested why it was not giving the clarion call that we were going to be having this problem. Why, as you admit, Mr. Richardson, why was the administration caught flat-footed on this?

Secretary RICHARDSON. Well, first of all, I never admitted that. Second, we are not flat-footed. In your region, the domestic heating oil crisis is the biggest problem. We have been pushing and we have been saying that we needed a Northeast Heating Oil Reserve, we have been saying that stocks are low, we have been working with the home heating oil people and transportation, we have asked for authority from the Congress to deal with this reserve which is in your State, and we need it passed.

Mr. SHAYS. Let me just remind you though, you did have a meeting with New England Members, Mr. Sanders was leading the charge and he was asking both that we utilize the Strategic Petroleum Reserve and he put forward the home heating reserve bill, and to which we signed on. It was not an initiative of the administration. It was initiated by Mr. Sanders and which we all readily agreed. It surprised me that it kind of came out from a rank and file member and not from the administration.

But let me ask you this, why are you blaming Congress, and specifically Republicans, for the fact that the Energy Policy Conservation Act has not moved forward when it is Ms. Boxer that is holding up the bill? The last time I checked she was a Democrat.

Secretary RICHARDSON. Mr. Chairman, first of all, I did not blame any Republican. I said the Congress has not passed this. There have been a number of holds. You mentioned a Democratic member, I was not aware of that. The other holds have not been by Democratic Members. But I do not think we need to dwell on that. We need this legislation passed. I need full authority for the trigger on the Northeast Home Heating Oil Reserve, for the Strategic Petroleum Reserve. We need to pass it. I do not care what is holding it up, we just need to get it done. This is for the national interest. I am not trying to point fingers, I am just stating a fact. It is not authorized.

Mr. SANDERS. Mr. Shays, would you yield?

Mr. SHAYS. No. If I could just continue my questions, please.

Yesterday we heard testimony about changes in the domestic oil marketplace since the 1980's resulting in a far less vertically integrated supply and distribution system. In your view, just who or what is "big oil" and what is their role in today's domestic energy market?

Secretary RICHARDSON. The FTC conducted an investigation about why the price differentials were so high in some parts of the country. I think what the FTC in their preliminary investigation concluded, and that is not a complete report because they still are working on it, is that environmental factors, the reformulated gasoline 3 to 6 cents, were not the cause for this increase, for this spike. The causes were several—transportation problems, pipeline problems, market problems. I think that was perhaps what your question refers to.

Mr. Shays, I am not here to blame any industry or any Members or any causes. I just think that we need to work together to have a comprehensive policy that deals with supply and that deals with demand. We have 3 weeks to go in the Congress and there are a

number of necessary steps that need to take place. In the same vein, the executive branch also has authority to take several steps, some of which the President is considering, that deal with the present crisis.

Mr. SHAYS. The President and the Vice President, which you refer to as the Clinton-Gore administration, has been making strong attacks against "big oil." I just want to know what big oil is and then we go from there.

Secretary RICHARDSON. Mr. Shays, this is a political campaign. I am the Secretary of Energy for the Clinton-Gore administration. I am not interested in blaming anybody. I want to fix the problem and I want to fix it with you. I think it has been referred that large oil companies have been doing quite well lately. Their profits are up. The American people, I think rightfully so, had questions in the Midwest about why the price spikes increased dramatically. The price of oil is \$38 a barrel. That is unacceptable.

Mr. SHAYS. Is big oil responsible for the \$35-plus a barrel?

Secretary RICHARDSON. No. It is a variety of factors. It is the market, it is many other reasons.

Mr. SHAYS. Well wouldn't OPEC be the No. 1 reason?

Secretary RICHARDSON. No. I think that OPEC has been working with us quietly. In the last three instances, they have raised production levels, not enough. We operate on the free market. OPEC is a cartel. We opposed their production cuts in the past. But the fact is that we have a demand problem.

Mr. SHAYS. Isn't it true though that the administration earlier on was concerned with \$10 a barrel and was encouraging OPEC to limit supply to get that price up a bit?

Secretary RICHARDSON. No, that is flatly wrong.

Mr. SHAYS. You were not concerned about domestic production that started to go down because we could not produce at \$10 a barrel?

Secretary RICHARDSON. Well, yes, of course. And I warned this and I am publicly on record as saying that \$10 a barrel per oil is not good. That is not good for the market, it is volatility, it hurts a lot of States in our country that produce domestic oil and gas. The stable price that I think is ideal is between \$20 and \$25. But we think that the market should dictate those forces.

Mr. SHAYS. Two last questions. The Strategic Petroleum Reserve which, admittedly, many Members of Congress encouraged you to release, so I am not suggesting that I was not part of that and also a part of the home heating reserve, there are others who respond to our effort to do that with some concern, that it is a distortion in the marketplace, as you just made reference to.

There is a concern that, for instance with the home heating reserve, the suppliers are not going to buildup a reserve and inventory it if they are concerned that all of a sudden the administration, whichever administration, decides to release it and significantly reduce price. So there is a sense that maybe we are actually going to have less supply rather than more because of this reserve.

Secretary RICHARDSON. The home heating oil reserve is just 2 million barrels. That we do not anticipate would affect the market. It is only there, as many of you constructively suggested, for supply emergency. The language, the trigger authorizing me to use it, Mr.

Shays, is based not on the price but on the supply emergency. I welcome that. I do not want to base it on price. I think it should be on supply emergency.

What the home heating oil operators lack is an incentive, as you said, to stock product reserve. We have to give them incentives to do that. We have been working with them, transportation, a number of other measures, their interruptible contracts, and we have a good dialog with them. Some have suggested, and I would welcome your thoughts, a tax credit for them to store home heating oil, a small tax credit to give them an incentive to store it. Because, as you said, they are not storing right now because prices are so high.

Mr. SHAYS. Thank you. And what would be the trigger for releasing the Strategic Petroleum Reserve? What should be the trigger so we know it is not a political decision?

Secretary RICHARDSON. Well, that is already in statute. The trigger is a national supply emergency. You are talking about the Strategic Petroleum Reserve? Because we have the Northeast Reserve.

Mr. SHAYS. Right.

Secretary RICHARDSON. There the language is supply interruption.

Mr. SHAYS. So it is a little nebulous though? In other words, the President can do it and say there is an emergency.

Secretary RICHARDSON. Yes.

Mr. SHAYS. Let me just end with this question. In a recent appearance before the House Committee on International Relations, you were asked if Governor Bush was responsible for today's high oil prices. Your answer was "No." Is that still your position?

Secretary RICHARDSON. Governor Bush?

Mr. SHAYS. Yes.

Secretary RICHARDSON. No, it is not his fault.

Mr. SHAYS. Thank you.

Mr. BURTON. Mr. McHugh.

Mr. MCHUGH. Thank you, Mr. Chairman. Just to kind of fill out the record on what Mr. Shays and you, Mr. Secretary, were talking about on RFG. I am not familiar with the Federal Trade Commission study, but I am familiar with a study done by the Congressional Research Service that found that 25 percent of that—Secretary Browner is shaking her head, but I can read the English language—

Ms. BROWNER. We would be happy to supply for the record, I may actually have that with me—

Mr. MCHUGH. I would be delighted to have you supply all that information. But still, the Congressional Research Service found that 25 percent of that increase, which is not even a majority of the increase but a substantial part, was due to that. And the Energy Information part of Secretary Richardson's own Department of Energy found, if I can read the English language correctly, "The new product required a substantial change in the blend recipe and in the characteristics of some of the components to make the new product." It went on to talk about the significant difficulties in that reformulation on the price. You may want to forward that information to Secretary Richardson as well because apparently his DIA is not aware of it either.

Mr. Secretary, I agree, we have to work together. I go home to a part of the United States that encompasses the Adirondack Mountains, hundreds of miles of Canadian border where it will be snowing very soon. I do not think my people are concerned who is right and who is wrong, and I am sure not going to check their voter registration card before I see if we should help them. I know you well enough to believe very strongly you share that sentiment as well.

So I would like to talk a little bit less about the longer term approaches, not that they are unimportant, but rather what we can do now to avert or at least ameliorate what will be a crisis of life and death proportions in areas that are served by people such as Congressman Sanders, myself, and many others.

I made the comment yesterday that it is hard to think about politics when it is snowing in your district 7 months out of the year. It is hard to rationalize the current price of a gallon of oil based on statistics that average it out over two decades when your main industry, as is true in both Bernie Sanders' and my district, is the dairy industry and you are receiving the same price for your product today that you were 20 years ago. I would suggest that 100 percent increase in the cost of home heating fuel, 100 percent, approximately, cost increase in the price of diesel fuel that runs your tractors, that allows you to make a living, as meager as it is, is truly an emergency.

OPEC has talked about a target of \$28 a barrel for oil. Where do we stand, and by "we" I mean this country, on that target? Is that a reasonable cost? We heard a lot yesterday from people in the oil industry who said that the great anomaly was the \$10 a barrel of oil. Fine. Let's accept that. Is \$28 reasonable, or is that an objective we should accept now? How do we react to \$28 a barrel?

Secretary RICHARDSON. Congressman, what we have said is that \$10 is too low, \$30, now \$30-plus, is much too high. What we have said ideally is between \$20 and \$25. Naturally, \$28 is better than what exists today. Nonetheless, OPEC has established what is called the price ban. Anytime it exceeds \$28, and you mentioned that \$28, they would automatically increase production if it is I think 20 days by 500,000 barrels. That has not always happened.

Our view is that the market should dictate these forces. But we think that for producer and consumer countries \$20 and \$25 is good for economic growth, to quell recessions, and to deal with the basic supply and demand laws.

What has happened, Congressman, is a dramatic increase in demand throughout the world, it is not just our country. Europe and Asia. And I share your concerns very much about your region. This is why we think the Northeast Home Heating Oil Reserve is important. There is a real acute home heating oil shortage in the Northeast. We are very worried about it.

Mr. MCHUGH. And I was an early supporter of Congressman Sanders' bill, an original cosponsor, and I was proud to do so, and I commend the President for creating it by Executive order. I think it will help. I hope it will help. But I am not sure it is going to be enough.

You talk about market forces. I am a Republican and generally a market oriented kind of guy. But the market is not working suffi-

ciently right now. It seems to me when OPEC increases, as it did about 2 weeks ago, their pledge of an additional 500,000 barrels, and your North crude oil goes up to over \$33 a barrel within hours, we have got to do something more.

I am very concerned that the President, the administration has not taken the steps nor seen fit to release the Strategic Petroleum Reserve supplies. If we do not do that, thinking only in the short term, what can we do to ensure that this winter will not be a catastrophe for many people in the colder climes of this country? What other remedies are there short of hoping that OPEC will sufficiently increase production?

Secretary RICHARDSON. Congressman, we will continue to urge OPEC to consider increasing production, because it is obvious that the world needs more oil. Second, on the Strategic Petroleum Reserve, whether it is a sale or a swap or other proposals, the President is actively considering that right now. At this very moment a decision is eminent. He may decide not to tap it. We have been very reluctant to tap it in the past because of the language in the legislation that it should be a national supply emergency. We used it during the Gulf. We have used it very sparingly.

What else can we do, Congressman? I think we can work together on additional low-income energy assistance funds. I know in your district you have a lot of moderate income and poor people that could use this. And I am glad you mentioned the Northeast Oil Reserve. We need to get that passed. Even with Executive order, the trigger for its use is important. We also believe that heating oil deliveries are very important that they take place without any transportation or pipeline problems. We work with the Coast Guard to ensure their ready access into the harbors that reach you.

We have had a number of emergency efforts in the event of a home heating oil shortage. Exercises with regions and States to deal with the problem, including I believe your State.

Mr. MCHUGH. I appreciate that. Shortages are one thing. Fuel disruption is another. Affordability is the most important, and that is what disturbs me. I think that is the key question here that is being avoided. In fact, as one of the strongest supporters of LIHEAP, there is an economic reality that the more you take out of the market to LIHEAP, the higher price pressures you place on people who are at the lower income levels who do not qualify, many of whom live in my district. So that is not the answer either.

The final comment on this is that there has to be release of SPR. There is no other way that I see, and it is not that I am unwilling to entertain it for any reason, political or otherwise, but the only way a crisis of price is going to be avoided—not supply interruptions, but affordability—is through SPR. So I hope you will continue to press that with the President, because that, it seems to me, is the sole relief.

Secretary Browner, I am concerned about this proposed sulfur reduction in diesel. You talked about this issue and I wonder if you could comment further on the issue of diesel.

Ms. BROWNER. Yes. In my written testimony I did speak about the diesel. I would be happy to speak about it now.

Mr. MCHUGH. You did not in your oral testimony?

Ms. BROWNER. No. I was talking about last year's rule to remove sulfur from conventional gasoline, not from diesel.

Mr. MCHUGH. I misunderstood. I was reading while you were speaking and I did not bring the proper nexus. I apologize. Well let's talk about the proposed reduction. That is a 98 percent reduction in the sulfur level of on-road diesel. I know I heard you speak about the flexibilities and the opportunities that you are trying to access and working with industry and such. It can come as no secret to you that the industry is very concerned, not just the diesel producing industry but also the manufacturing industry that will use these diesel supplies to power their machinery, is concerned that, No. 1, the technology today simply does not exist to accommodate this kind of reduction.

In my chairman's own State of Indiana, Cummins Manufacturing has stated, "Cummins has been in this business for 80 years and we don't know if these standards can be met and what the total cost is. How possibly can EPA? With no explanation or justification, EPA has chosen to propose a regulatory scheme without the meaningful exchange of technical information and ideas that preceded prior proposals. For such far-reaching standards, extraordinary and as yet undeveloped technology will be needed and huge investments in time and in resources will be committed . . ." They go on to say this is what they feel is an unachievable and unworkable approach.

The other thing that troubles me is that the Department of Agriculture asked that EPA should provide more information to demonstrate that fuel supplies to farmers in rural areas not be interrupted as the industry converts to the ultra sulfur diesel fuel.

The industry offered 90 percent. Apparently the EPA is insistent on 98 percent and has refused to extend the public comment period, even when the administration's own Department of Agriculture says this is ill-considered. I am curious how you would respond to those kinds of objections.

Ms. BROWNER. First of all, this effort to reduce pollution from on-road vehicles—cars, SUVs, diesel trucks and buses—has been the work of the EPA and the administration for 7 to 8 years now. This is not a new idea, this is not something we have come to lately.

Specifically with respect to diesel. Diesel fuel today has approximately 500 parts per million sulfur. It is a very, very high sulfur content. With that high sulfur content comes a whole host of public health, particularly respiratory, issues. We have made a proposal to reduce the pollution that comes out of the tailpipes of large trucks and buses. The way you change the pollution out of the tailpipe is you make adjustments in the fuel, you make adjustments in the engine, you add things like catalytic converters.

You note that there are companies who have raised questions, and we are in dialog with those companies, as we did when we set the car and SUV standards last year. I would also like to note for the record there are companies that are supporting our proposal. For example, BP Amoco has written in support of the 15 parts per million diesel fuel standard that we have proposed. There are manufacturers, the companies that will make the catalytic converters, the companies that will make the technologies to meet the tailpipe

standards, they are supporting our proposals. There are even engine manufacturers that are supporting our proposals.

Having said all of that, this is a complicated undertaking. We have been at it for many years. We are listening to all of the parties concerned. We are trying to honor requests from many, many Governors. I do not think we have heard from a single Governor who is opposing these proposals to help them clean up the air their people breathe. One of the most important things we can do at the national level is to look at the on-road diesel fuel—and this is important because you are going to hear people talk about all diesel fuel. We are talking right now about the diesel fuel that is used on the road, not off the road, not in farming equipment, but in the 18 wheelers and the buses.

Mr. McHUGH. So we go back to the division of fuel that the chairman pointed out even further in his comments, and apparently 90 percent reduction voluntarily has been rejected, and you refuse to extend the comment period. How can you talk about—

Ms. BROWNER. And let me note that is some companies' position, it is not all companies' position. When you look at what comes out of the tailpipe, if you want to clean up that goop, that stuff that we all hate sitting behind, that fog, if you will, that comes out of the large trucks, the diesel buses, you have to do two things. You have to clean up the fuels. When you clean up the fuels, that allows you to put on the first ever catalytic converters. How many of you knew that? Catalytic converters do not exist on the large diesel trucks and buses. The clean fuel is necessary. I might just point out while BP Amoco says 15 is fine, others in the industry have said something higher, you should know where Detroit is, you should know where the engine manufacturers are. They want 5 ppm of sulfur content, not the 15 which we have proposed.

So that is by way of saying this is a complicated issue. We are engaged in a thoughtful process. We are committed to finishing this because, and I think this is important, if there is one thing I have heard over the last 7½ years from CEOs in this country, it is give them as much time as possible to meet environmental standards. The sooner we finish, the sooner they know, the sooner they can start looking at how to most cost effectively meet these standards.

Second, we are working, for example, I had a lengthy meeting with the CEO of Cummins yesterday. They have their position, but we did take the time, despite their position of opposition, to hear what they had to say about how we might be able to structure the flexibilities. They may ultimately never agree with us, but we are open to anyone who wants to bring us a proposal.

Mr. McHUGH. So I assume that is a no, you will not extend the comment period. That was my question.

Ms. BROWNER. We have not made any final decisions. We are reviewing everything that we have received. We are committed to getting the public health benefits that will come from cleaner diesel engines and fuels.

Mr. McHUGH. So you may extend then?

Ms. MORELLA [presiding]. The gentleman's time has expired.

In deference to the fact that we did give more time to this side, we will extend to the minority side an extra 5 minutes. So I will

recognize Mr. Waxman for 35 minutes. And maybe another answer yes or no could be part of a response to Mr. Waxman's questions.

Mr. WAXMAN. Thank you very much for giving us the extra time.

We appreciate the witnesses being here. And I appreciate the time under which Mr. McHugh addressed this issue, because what he pointed out in his time was that we have got a problem in this country and we need to work together on this problem. It is not a Democratic or Republican problem. We are facing an energy crisis in some parts of our country with heating oil prices and maybe even availability being very, very high. We see electricity rates in California, maybe other places, soaring. The gas prices are rising. So we need to address these problems. It is our responsibility, both the Congress and the administration.

We are seeing that we are greatly dependent on foreign oil and we are able to be manipulated by OPEC. The way that Government works is the President, and all of you represent the President and his administration, proposes ideas, but then the Congress is supposed to dispose of these ideas. And the administration has proposed a number of initiatives that would help resolve our country's short and long term energy needs.

Secretary Richardson, I would like to begin by asking you about some of these administration proposals. One of our basic safeguards against oil price manipulation by OPEC is the Strategic Petroleum Reserve. My understanding is that the President has urged Congress to reauthorize the Presidential authority to utilize the Strategic Petroleum Reserve in times of energy crisis. But Congress has not done so. Could you describe why the administration believes reauthorization of SPR is important?

Secretary RICHARDSON. Mr. Chairman, the reauthorization of Strategic Petroleum Reserve is essential because the ability of the Secretary of Energy to advise the President when it is a case of national emergency shortages, you also have to manage the Strategic Petroleum Reserve. We have 570-plus million barrels that has been a very wise investment and you have to manage it, you have to replenish it, and you have to maintain it. So that full authority to use it, the authority for the trigger in a national supply emergency is needed. Plus, there have been a number of I think add-ons relating to the authorities relating to some energy initiatives here that are part of that bill. And we need it passed. It is not passed.

Mr. WAXMAN. What are the consequences if Congress continues to block this reauthorization of the Strategic Petroleum Reserve?

Secretary RICHARDSON. I think a questioning of the executive branch's, my authority to use the Strategic Petroleum Reserve in time of emergency. We think that it is needed as a very urgent priority, along with the Northeast Home Heating Oil Reserve, the trigger to use in case of an emergency. Let's say sometime this winter in New England there is a home heating oil crisis and we have not resolved this and I do not have the authority to use it.

Mr. WAXMAN. One of the other areas we can deal with the energy crisis is to reduce our dependence on foreign oil by increasing energy efficiency, if we used our energy resources more efficiently and effectively. Over the past several years, the administration has proposed tax breaks to encourage Americans to purchase energy effi-

cient cars as well as homes. What has happened to these initiatives, Secretary Richardson?

Secretary RICHARDSON. They have languished, \$4 billion worth of tax credits on energy efficiency for homes, for fuel efficient vehicles, for buildings. Chairman Waxman, we think that we can dramatically improve our energy resources in this country by having increased energy efficiency, but you have to have incentives for that to happen. The Partnership for a New Generation of Vehicles with the auto companies to have more efficient engines, to have SUVs that are 40 miles per gallon, a lot of the issues that Administrator Browner has championed in fuel efficiency, they are lagging and we need that to pass to have an energy policy that deals with the supply needs of the country but also with demand.

Mr. WAXMAN. So the administration proposed these ideas of some tax incentives to become more efficient. The Congress has not acted on them. It seems to me that what we see is we are not making the progress toward energy independence that we could if Congress would act to work with the administration to pass this legislation.

Secretary RICHARDSON. And you made an excellent point about renewable energy. We have to reduce our dependence on foreign oil; it is 57 or 58 percent now. If we invest in new technologies, as you said, and we invest in wind, in solar, in biomass, in bioenergy, in fuel cells, these are worthy investments. And only 7 percent of the administration's budget in that area in the past 7 years has been funded.

Mr. WAXMAN. Let me draw your attention to the question of electricity restructuring. At yesterday's hearing, we heard from witnesses who had recently experienced sharp rises in electricity rates and brownouts. Two years ago, the administration proposed legislation that would have provided for restructuring of our Nation's electric utilities. Could you describe the key provisions of this proposal and how this proposal could help address some of the problems we currently face with our electricity system. Tell us, has Congress acted on the administration's proposal to modernize our electric utilities?

Secretary RICHARDSON. Regrettably, one of the House chairmen dealing with this issue said the electricity restructuring bill was dead in the Commerce Committee, which is the main vehicle for passage. We regret that.

What our bill does, Chairman Waxman, is increase competition, it will improve the environment, it will save the customer money. What we want to do is several things. One, deal with the fundamental problems that exist of inadequate transmission, generation facilities, improve energy efficiency efforts in our electricity grid, push for independent power operators so that utilities and other power sources can invest in electricity grid that is badly in shape, that needs modernizing. What you have is a dramatic increase in demand and an electricity grid that has not had strong authority and strong investments to keep it refurbished.

The bill gives Chairman Hoecker and FERC the authority to take several steps to make our grid more reliable and efficient. That has languished, too. And after the brownouts and blackouts around the country, after the fact that over 26 States have already had restructuring legislation in their State legislatures, including Califor-

nia, the Federal bill would have had rules of the road that enabled a lot of Federal statutes that are harmful to be removed. And, regrettably, this bill is not moving.

Mr. WAXMAN. Well what we have had is administration proposals to reauthorize the Strategic Petroleum Reserve, to give tax breaks for energy efficiencies, to have a partnership with the automobile industry to produce cleaner and more efficient automobiles, we have had proposals for electricity restructuring, we have had specific ideas from the administration and proposals for funding for conservation and renewable energy. And none of that has been moved in the Congress of the United States.

Now let's look at what some of the things are that we have seen in the Congress, initiatives here. Congress has not been receptive to your energy proposals and I suppose it is because the leadership in the Congress thinks it has some better ideas. I would like to get your comments about some of these other ideas that they have.

Every year, since 1995, the Republican leadership has introduced a measure known as Department of Energy Abolishment Act, which would abolish the Department of Energy. What is your view on whether this proposal would help advance energy policy. I know it would cost you your job, but is this a constructive way for us to deal with our energy policy, just abolish the Department of Energy?

Secretary RICHARDSON. Mr. Chairman, I am not going to be humorous. But sometimes I wonder whether that didn't make sense in light of my recent—[laughter]—but, no, course not. The Department of Energy has very valuable functions. It deals with our nuclear weapons, electricity, renewable energy. It deals a lot of very important national security programs, with Russia, and non-proliferation programs. It is the ultimate science agency in the Government. It is a very important department. That is not the way to deal with the problem.

Mr. WAXMAN. Absolutely not. And we could laugh about it because it really is a laughable idea that the response of the leadership of the Congress of the United States, and sponsored by many members of this committee, including one member who said the administration has failed, that their answer was to abolish the Department of Energy. And another answer they have had is let's allow drilling in the Arctic National Wildlife Refuge. Does that make sense?

Secretary RICHARDSON. We are opposed to that, Congressman Waxman, because we think that it is a very ecologically sensitive area, the caribou and other wildlife we believe would be harmed. We think there is sufficient other area in Alaska that could be drilled that is already available that can properly deal with our energy needs. We think that there are some very, very sensitive parts in the country. And by the way, the offshore drilling in California and Florida was congressionally mandated. So it is not something that came out just from one branch of the Government, it came from both of us.

Mr. WAXMAN. Not only was it congressionally mandated, but it was congressionally mandated on a very strong bipartisan vote. Most Members of Congress, whether Democrat or Republican, do not want to go out and have oil rigs off our coast. We do not want

it in California, I do not think people on the East Coast want it, and their representatives all across the country said no to that idea.

Another way we can deal with this energy problem is to set up standards for automobiles, they are known as CAFE standards, Corporate Average Fuel Economy. That is to make sure that the average fuel efficiency standards that we require for cars are going to mean that we have less reliance on fuel. In fact, Honda has brought a car to the market using a hybrid electric technology that gets 70 miles to the gallon. Toyota will soon be selling a four passenger car that achieves over 60 miles to the gallon.

The Congress has blocked the Department of Transportation for the last 5 years from even studying whether the greater fuel efficiency is feasible. As a result, fuel economy levels have stagnated. And since the 1980's, CAFE standards have only required that new cars average 27.5 miles per gallon. Honda is getting 70. Congress has said we are going to allow 27.5 miles per gallon, and light trucks average 20.6 miles per gallon.

It just seems to me we need to be addressing our fundamental energy problems, we need to address our dependence on imported oil, and our reliance on an antiquated electric system. But Congress has not acted on these issues. Instead, we do nothing and when something inevitably goes wrong, and we are now seeing our system going wrong, we search frantically for someone else to blame. And this is the political season. So what we have are hearings where one of the Members asked, the first question, why has the administration failed to deal with the energy crisis. Well, that is not taking responsibility that we all have, you have and we have in the Congress of the United States.

Administrator Browner, I want to ask you some questions. Yesterday we heard a number of different claims from majority Members that suggested environmental regulations in general, and the Clean Air Act in particular, are causing our energy problems. I want to talk about some of these issues.

We heard there is simply too much red tape and environmental regulation. We had a lot of colorful analogies. For example, the National Petrochemical and Refiners Association testified that EPA has created a regulatory blizzard for the Nation's refiners. Now you addressed this issue earlier about this claim that you are not allowing permits for new refinery construction. Chairman Burton made a big point of stating that no new refineries have been built since the early 1980's, and he alleged it was due to permit requirements under the Clean Air Act. And he went on to blame the failure of EPA to approve new refineries as one of the major causes of today's high gasoline prices.

Ms. Browner, do you know how many applications EPA has received since the early 1980's to build new refineries?

Ms. BROWNER. For brand new ground-up?

Mr. WAXMAN. Brand new refineries.

Ms. BROWNER. We may have gotten one in 25 years. One.

Mr. WAXMAN. Is it possible for EPA to issue a permit for new oil refineries if no one has applied for it?

Ms. BROWNER. No. It requires a company to come forward and make an application. Many come forward to expand their existing

facilities, and those get granted. But a new one would require a company to come forward and make the application.

Mr. WAXMAN. I raise this question because I think it is highly misleading to say that you are not giving permits for new refineries and that is the reason for the problem.

Ms. BROWNER. It is completely misleading. They are not coming to us. And I spend a lot of time with the petroleum refiners of this country. We work closely with them on a lot of fuel issues. They do not come in and meet with us on building new refineries. We are there, we are available if that is what they want to talk about.

Mr. WAXMAN. But what they are talking to you about, and they are getting permits from you, is to build not new refineries but to consolidate and expand their existing refineries.

Ms. BROWNER. Yes.

Mr. WAXMAN. And that is the trend that I understand is continuing. Oil companies are not asking to build new facilities, they want to modify and expand the existing ones. Can you tell us whether that is happening and whether you are giving out permits. What is happening with their efforts to expand and modify their facilities?

Ms. BROWNER. Absolutely, they are expanding their facilities. We and the States do grant these permits. I think I mentioned earlier that in the last 2 years we have had 12 applications for expansion of existing facilities; 7 of those have already been issued, 5 are currently pending and we presume will be wrapped up in a timely manner.

What is happening is you cannot just look at it 200 facilities and then 155. Uh, oh. You have to look at what are the 155 capable of doing. And that is what that chart shows, their capacity is actually going up and we are granting the permits to allow that to happen. We would welcome a permit for a new refinery if someone wants to bring it. We will give it the full review.

Mr. WAXMAN. And how long does it take?

Ms. BROWNER. For the expansions, most of them are managed within 12 months, about half of them are managed within 5 months.

Mr. WAXMAN. I just want to cite for the record Citgo applied in March and is expected to be approved within 2 to 6 weeks, Valero applied in July and is expected to be approved by the end of the year, Exxon Mobil applied in June and is expected to be approved by the end of this year.

Ms. BROWNER. Correct.

Mr. WAXMAN. And as I understand, there have also been two applications in Minnesota, one has been approved and one is pending.

Ms. BROWNER. Correct.

Mr. WAXMAN. Now let's turn to the issue of electricity generation. At yesterday's hearing, we spent considerable time discussing California's energy situation and new power plants that are currently expected to come on-line. In that discussion, the Clean Air Act was repeatedly blamed for the length of time it takes to site energy projects. For instance, allegations were made that implied that it takes 6 to 7 years to get a permit under the Clean Air Act to site high voltage transmission lines. Another witness mentioned an

anecdote of 15 years being required to site a high voltage transmission line.

Ms. Browner, we have investigated these allegations. They do not appear to have any basis in fact. My understanding is that the Clean Air Act permits are not required for siting of transmission lines. Could you clarify for the committee whether there are any requirements for transmission lines to be permitted under the Clean Air Act.

Ms. BROWNER. There are no Clean Air Act requirements. There are no Clean Air Act permits required to site a transmission line. Those decisions are made by States under any number of laws that they are responsible for. But we do not engage in the siting of transmission lines.

Mr. WAXMAN. In the case of power plants, as distinguished from transmission lines, there are Clean Air Act requirements.

Ms. BROWNER. Yes.

Mr. WAXMAN. The Clean Air Act does require that new power plants be permitted under the Clean Air Act. Why is that the case?

Ms. BROWNER. The Clean Air Act looks at the emissions from power plants and, based on those emissions, Congress required us to set up a permitting program. But there, too, Mr. Waxman, it is important to understand what the real facts are. We have, and the States have received in the last 2 years, including some very, very recently, 300 applications for electric turbines. Over 60 percent of those have already been issued. They move through the process very rapidly, again on the order of approximately 12 months, on average. The States take the first step in this. We frequently do not become involved except to concur in what the State is requiring in terms of pollution reductions. We all work together and it moves very quickly.

Mr. WAXMAN. My understanding is that the Commission's process rarely takes longer than 18 months. You say an average of 12 months.

Ms. BROWNER. Correct.

Mr. WAXMAN. I also understand that over the last few years hundreds of applications under the Clean Air Act have been filed for new gas turbine electric generation. These applications have been filed under the Prevention of Significant Deterioration part of the Clean Air Act. How long does it typically take for a PSD permit to be approved?

Ms. BROWNER. Again, those are moving on an average of 12 to 18 months.

Mr. WAXMAN. So what you are saying in essence is that, once again, the facts just do not support the rhetoric we have been hearing.

Ms. BROWNER. If there is a 7-year permitting process, we are happy to look at it. Our numbers do not show that. I do want to remind all of the committee members that, because of the Clean Air Act, you all made the decision that the States would have the first bite at the apple. We see it only after they have come through an initial process. We generally concur in what the States are doing.

Mr. WAXMAN. Ms. Browner, we have gone through some of the allegations with you right here on the record about the costs of the

Clean Air Act. What your answers indicate is that the allegations of delays and high cost do not have much basis in fact. My experience is that this frequently happens when industry complaints are closely scrutinized.

I have been in the Congress for 25 years. I sat on the committee that dealt with the energy policies and the Clean Air Act, not this committee, it is the Commerce Committee. And the fact is that industry regularly overstated the cost of complying with environmental regulations. When we were considering the Clean Air Act of 1990, which passed almost unanimously, signed by President Bush, we had industries come in and tell us that the costs to comply with that law were virtually going to bankrupt the economy. Of course, nothing like that has happened.

And I want to give examples, because people forget what the record is. Every time we have a hearing somebody comes and makes the wild charges. Yesterday at this hearing we heard from Steven Simon, a senior executive at Exxon Mobil, who raised concerns about the cost of EPA fuel regulations. But his company has a history of exaggerating compliance costs. When we were considering the reformulated gasoline provisions of the Clean Air Act, Mobil wrote to Members of Congress that the requirements should not be adopted because, they wrote to us that "technology to meet these standards simply does not exist today." And then it turned out to be completely wrong, untrue. The reformulated gasoline provisions went into effect in 1995 and have brought about tremendous clean air benefits. Just so people understand that.

In addition to trying to make new cars cleaner by emitting fewer pollutants, we try to make the gasoline burn in a cleaner fashion as well. That is the reformulated gasoline issue. Has that been a success and have petroleum companies been able to comply?

Ms. BROWNER. It has been a tremendous success in terms of cleaning the air and in a very cost effective manner. And we believe, and we have every reason to believe, that the low sulfur gasoline requirements which are now in place and will start to take effect in 2004 will similarly be very cost effective. And just as an example, let me point again to the fact that BP Amoco is already selling the low sulfur gasoline, and not with a price differential. They are already selling today what we are going to require all companies to sell beginning in 2004 in a number of cities, and they will be adding more cities to that list in the coming weeks and months. That is I think a real testament to the fact that when we set these standards, not only do we achieve a level of public health and environmental protections, but we are doing it in a sensible way that works for the businesses of our country.

Mr. WAXMAN. I just want to give another example of the kind of statements we hear at hearings that turn out to be absolutely wrong. The utility industry, when we were looking at trying to adopt legislation to stop acid rain, they exaggerated the costs, the chemical industry said that if we phased out chlorofluorocarbons it would cause massive disruptions, the auto industry said they could not meet new tailpipe standards. Yet each one of these statements turned out to be wrong. Once we adopted that law, President Bush signed that law, all these industry groups went ahead and not only complied, but even did better than the law required under many

circumstances. So I think it is important when we hear these exaggerations by industry groups to keep that in mind, especially when their answer is to drill on our coastlines and go up and drill in Alaska. That is their answer to the energy crisis.

Secretary Richardson, I am going to yield my time to some other Members, but you made a statement I just wanted to ask you about. And I know you do not want to blame anybody, you want to be a statesman, you have been at the U.N. so you know what being a statesman is all about, but I was sort of taken aback when you said you don't think OPEC should be held responsible for the crisis that is happening in this country. I know we are to blame ourselves when Congress does not act, we do not do anything to reduce our reliance on fuels. But OPEC is a cartel. They have a monopoly. They can turn on and off the spigot. They know that we are dependent on their oil. Why don't we just admit that they are playing games with us?

Secretary RICHARDSON. Mr. Waxman, let me be very careful because I have to deal with these energy ministers all the time. I do want to be clear. I believe that OPEC, the last three meetings they had in which they were considering increasing production, they did so. A lot of it was for their own reasons, but our quiet diplomacy I believe worked. I think that they have acted responsibly in terms of the increases, 3.5 million barrels more than existed at the time. Obviously, the markets have not responded. The world needs more oil.

So, I do not want to blame OPEC for the misfortunes of a world that has dramatically increased demand and a number of intersected energy problems that we have. I believe our policy toward OPEC, which is one of quiet diplomacy, constructive engagement with them, pushing for increases in production—2.5 million in their March meeting, 700,000 in their meeting in June, and 800,000 in their last meeting, and possibly more soon—has worked. I think Saudi Arabia has showed dramatically positive leadership.

Mr. WAXMAN. Mr. Secretary, I understand what you are saying. But the answer to OPEC is for this country and the West to become less dependent on them. I hope the high prices that they are forcing on us and the games they are playing will be a signal to all of us that we have got to wake up and become more energy efficient and less dependent on foreign oil for our own economic well-being and our national security. I do not like the idea of OPEC having that much control. We saw what happened in the 1970's and we are seeing the exact same thing again. The best way to stop this is for us to take the actions that we need to take.

Secretary RICHARDSON. There is no question that markets and not cartels should set prices, you are absolutely right. And we do need to dramatically reduce our reliance on imported oil, there is no question about that.

Mr. WAXMAN. I want to yield to Mr. Kucinich.

Mr. SANDERS. Could I ask how much time there is remaining on this side?

Mr. WAXMAN. We are going to yield in a moment.

Mr. SANDERS. But there is a limited amount of time.

Mr. WAXMAN. But then we will go under the 5-minute rule.

I am yielding to Mr. Kucinich a few minutes, and then we will see if we can get to you, Mr. Sanders.

Mr. KUCINICH. I understand there is about 12 minutes left. I am willing to go for 3 minutes.

First of all, I want to thank Secretary Richardson and also Carol Browner, who I have had an opportunity to work closely with over the last few years, for your work for this country. You have both done an outstanding job and I really want to thank you for that. I have not had the chance to work with Mr. Hoecker, so I want to direct my questions to you. [Laughter.]

Mr. HOECKER. Thank you.

Mr. KUCINICH. We are told that natural gas now sells at a record high of \$5.22 per million British thermal units, more than three times the \$1.60 futures price in March 1999. Back home in Cleveland, this hearing gets kind of global at time, back home in Cleveland, OH, people are experiencing sharp increases for the price of natural gas. And we know the difference between September and January in Cleveland, trust me. Why are we seeing such a steep rise in natural gas prices even before families are turning on the heat?

Mr. HOECKER. Well, I think the explanation is the one I gave earlier, that we have a deliverability squeeze. There is I think one—

Mr. KUCINICH. What is a deliverability squeeze?

Mr. HOECKER. What it means is that the production from domestic wells has declined seriously as a result of a price collapse a couple of years ago, that the industry production area has not recovered from that yet, and that there will be a lag time till adequate supplies reach the market to drive the price back down to more reasonable levels.

Mr. KUCINICH. Our time is limited here, so excuse me for interrupting. But I want to ask you this question. In the meeting you had yesterday in Ohio, the reporting that came out of that meeting, that is cited in the Cleveland Plain Dealer here, says that there is adequate supplies. So, on one hand, we have some people in the natural gas industry saying we do not have adequate supplies, others are saying we do have adequate supplies. But we are seeing already anticipation of even higher prices.

My question to you is, I heard your remarks, how do you thwart market power? Are you ready to exert pressures on the market to keep the rates down? And are the rates subject to discipline by you? And if you are monitoring them, what do you intend to do for my constituents and for people in the Midwest who right now are faced with some horrible choices in their households when these rates start to go up? What is the Federal Energy Regulatory Commission going to do for the American people?

Mr. HOECKER. That is an interesting question. Our concerns about the impact on retail customers is going to have to be addressed largely at the retail regulatory level in the States. You will recall, Congressman, that Congress decontrolled the price of natural gas in the 1970's and 1980's. It is an unregulated commodity and we have a real market out there. This market is reflecting a supply demand imbalance right now.

The problem perhaps is somewhat definitional in the sense that I think everyone would agree this country has adequate natural gas reserves, enough for decades and decades. What we do not have is ample gas in the pipeline, in storage. And a lot of natural gas now is traded in the forward markets on the NYMEX and the market is saying that its value is greater in the interstate market. We do not control that.

Mr. KUCINICH. Thank you. I know there are other Members who have questions. I thank you.

Mr. WAXMAN. We have practically run out of our time. But I want to yield to Mr. Sanders 2½ minutes, if we could, and then we will see if we can get more time.

Mr. SANDERS. Thank you, Mr. Chairman. Two points. I want to thank you for all of the work that both of you have done in so many areas. But there is something that I want to raise to you today.

I am going to read from a publication, and this is what it says: "Venezuelan proposal detailed at Washington meeting. The U.S., September 20th, rejected a proposal by Venezuela's PDVSA in which the state company would stock its crude storage terminal in the Bahamas with heating oil and sell the additional distillate directly to the U.S. Government. 'We appreciate the offer of storage, but there is currently no need for storage of crude or product in the U.S.' a DOE spokeswoman told Platts." Platts is the publication. "The spokeswoman said that while the U.S. welcomed PDVSA's offer to boost distillate production, the DOE urged Venezuela to put the additional product on the market 'as soon as possible' rather than attempting to make a direct sale to the U.S. Government. 'There is no need for U.S. Government involvement in the purchase of this distillate,' this spokeswoman said."

As far as I know, we have a crisis in the Northeast regarding home heating oil. If Venezuela is prepared to sell us this product at a reasonable price, why don't we buy it?

Secretary RICHARDSON. Congressman, we think they should put it on the market. Venezuela has had proposals like this before. What we like to see is distillate on the market. Venezuela has been a constructive partner in a lot of these OPEC discussions, but it is our view that while it is an interesting proposal, it would be better accomplished by them putting this distillate on the market.

The second point I want to make, there will be a lot of reports that India, Saudi Arabia, other parts of the world have sufficient distillate that they want to sell us, that all we have to do is go out and get it. Those reports have not been confirmed. So with this proposal that the Venezuelans, our friends, have been making, our view is this is great, you have the distillate, put it out on the market.

Mr. SANDERS. I am not sure that I agree. Let me raise just two other brief questions. I have very little time. Mr. Waxman raised the question of OPEC being a cartel. Now I am not a great fan of the WTO. But as I understand WTO rules, cartels are in violation of free trade. I do not understand why the U.S. Trade Representative is running all over the world expounding—we had an agreement with China the other day about free trade. Why doesn't somebody in the U.S. Government say this cartel is in violation of free

trade agreements. Why don't we take them to the WTO? Are they in violation of free trade? I think the evidence is overwhelming that they are. Anyone disagree with me?

[No response.]

Mr. SANDERS. I am listening. If they are in violation—we just passed the Free Trade Agreement with China yesterday. I voted against it. Why aren't we standing up to these guys?

I think there is something, I will pick up on something Mr. Waxman said before, there is something very, very strange about our relation for OPEC. And let me be honest about it. I voted against the war in 1991. But people shed blood there, we have thousands of people who are suffering from Gulf War Illness today, I think the Vermont Air National Guard is over there now protecting the airspace. And I think that being treated in this way by our OPEC "allies," who we supplied military equipment to, we prop up billionaire rulers, I do not know if they have allowed in Kuwait women to drive yet or something, if they are making progress in freedom in that respect, I think there is something funny going on and we are not hearing the whole truth about it.

Let me just ask Ms. Browner a question. I want to applaud you for stressing what I think is the \$64 issue, and that is energy efficiency. Can you very briefly, in the very little time that I have left, just tell the American people what it would mean in terms of the saving of energy in this country if we move forward boldly in terms of energy efficiency.

Ms. BROWNER. I think the best thing to do is look at our track record to date. For example, our Green Lights program is saving during peak reduction in 2000 6,100 milliwatts. When we look at programs from Green Lights to computers to other types of equipment we use in our homes, we believe that energy efficiency could save the average American family on the order of \$400 in annual electric, home heating, etc.

Mr. SANDERS. If we became much more energy efficient, isn't it clear that we could break our dependency on Mideast oil to a significant degree?

Ms. BROWNER. We could certainly reduce it to a significant degree. I think there is this sense out there that somehow or another we did this energy efficiency thing back in the 1970's and we are done. The technology has advanced, industry has advanced. There are a number of things we can do and they are incredibly cost effective to do them, and yet we cannot get Congress to support our funding requests so we can go out there and do it.

Mr. SANDERS. Thank you.

Mr. BURTON. The gentleman's time has expired.

Mr. Ose.

Mr. OSE. Thank you, Mr. Chairman.

Mr. BURTON. We will now go to the 5-minute rule.

Mr. OSE. 5 minutes. Thank you, Mr. Chairman. First of all, I want to diverge a moment and thank Secretary Richardson. I dropped him a note earlier because I did not know if I would get time. But I want to thank you for the assistance in Sacramento on the McClelland reactor. That project is a success and will continue to be so, and your participation has been noted and is appreciated.

Secretary RICHARDSON. Thank you.

Mr. OSE. I want to look briefly at electricity into the California market. Who among you is probably the most knowledgeable about Bureau of Reclamation electricity—[laughter.]

Secretary RICHARDSON. Chairman Hoecker.

Mr. HOECKER. I am, sir.

Mr. OSE. All right. Mr. Hoecker, if I understand correctly, the Federal Government has two agencies that are significant generators of electricity. One is the Corps of Engineers, the other is the Bureau of Reclamation.

Mr. HOECKER. That is correct. Mostly in the Northwest.

Mr. OSE. You have got Bonneville, you have got Western Area Power Administration, all the others. But they use facilities that are controlled by the Corps or the Bureau.

Mr. HOECKER. Correct.

Mr. OSE. OK. The question I have as it relates to California is there is the Sierra Nevada region and then there is the Desert Southwest region, both of which contain Bureau and Corps projects that generate electricity into the grid for use in California and Western States. Is that accurate?

Mr. HOECKER. That is correct.

Mr. OSE. About 10 percent of their total generation is routed to investor-owned utilities, 10 to 15 percent, the rest going to municipalities, water districts, and things of that nature. Is that accurate, 10 to 15 percent?

Mr. HOECKER. I do not know the exact numbers, sir, but certain public power entities in the West have preference power. They have first dibs on that production.

Mr. OSE. I have look at this recently, and suffice it to say that after you follow the preferential allocation of the power, about 10 to 15 percent comes to the public market, it is sold through market-based rating, and distributed accordingly.

In June of this year we had a severe shortage of electricity in California, the consequence of which was that San Diego's consumers, those who rely on San Diego Gas and Electric, just got hammered in terms of cost of electricity. Are you familiar with that situation?

Mr. HOECKER. Yes. It has actually been worse in August and a little bit in September. But June really hit San Francisco as well.

Mr. OSE. OK. I was going to get to August and September, and I want to come back to that.

I have, Mr. Chairman, a limited amount of information about Bureau projects and their power generation over the last 5 years, starting in 1996. And what I want to get to is that if these facilities are generating power into the marketplace, the benefit of which to some degree accrues to the consumer in San Diego, then we ought to in a period of significant price spikes run those facilities flat out and we ought to be providing as much electricity into those markets as possible to keep the price down. Would that be a reasonable assumption?

Mr. HOECKER. Yes, within respectable reserve margins, that is probably appropriate.

Mr. OSE. A respectable reserve margin would be what, 5 percent, 10 percent?

Mr. HOECKER. Well, it has changed over time. We used to think reserve margins of 15 or 20 percent were appropriate. And in this market, it is well below 10 percent.

Mr. OSE. OK. And that ties into stage I, stage II, stage III alerts and how you figure out where the blackouts and burnouts go and all that sort of stuff.

Well the point that I want to bring up is that we have the Hoover Dam in the desert Southwest region which is running I would say over the past 5 years pretty much close to capacity. We have the Davis power plant, same thing. We have the Parker power plant, same thing. The Deer Creek power plant—these are all in the desert Southwest region and the Bureau's operations—same thing. The Elephant Butte plant, same thing. The Navajo plant, same thing. We are talking about hundreds of thousands of megawatts of aggregate electric generation.

What I am curious about is why, when we have such severe electric shortages, we are not running Glen Canyon flat out. We are running Glen Canyon at roughly 50 percent of capacity in the June, July, and probably August timeframe. I do not understand that. Who made that decision, and why?

Mr. HOECKER. That is information I do not have, sir. The Bureau of Reclamation or the Corps may have it, but I don't.

Mr. OSE. I would like to enter this into the record, Mr. Chairman.

Mr. BURTON. Without objection.

Mr. OSE. And perhaps copies can be distributed.

Mr. HOECKER. I do know that in the West generally this year it has been a bad water year and a lot of major hydro facilities have not run near their historic capacity.

Mr. OSE. I would probably concur with you and that is why I checked the others. Navajo, granted, is largely coal fired. But these others are in fact hydro plants and there is no significant variance in their production levels. So I checked that hypothesis because I was particularly concerned about that.

Mr. BURTON. The gentleman's time has expired. We will get back to you.

Mr. OSE. Thank you, Mr. Chairman.

Mr. WAXMAN. Mr. Chairman, I will yield my 5 minutes to Mr. Tierney.

Mr. BURTON. Mr. Tierney.

Mr. TIERNEY. Thank you, Mr. Waxman, Mr. Chairman.

Mr. Richardson, I yesterday had an opportunity to question a gentleman from Exxon Mobil about whether or not his company had reduced production over the course of last year by some 30 percent, because that is what had been reported. And he, in fact, acknowledged that they had. And it has been reported that not only that company but a number of other of our own domestic producers, so-called big oil, have been cutting our production. So I would assume that it is not just OPEC and non-OPEC foreign oil producing entities that are not producing as much as we would like, we have a problem here at home.

I then asked him whether or not they had made great profits. And I think it is interesting to note that in fact the oil industry has experienced significant benefits from increases in oil and gaso-

line prices. The 10 largest oil companies reported tremendous increases in profits in the second quarter of 2000.

Overall, those 10 companies reported second quarter profits of \$11.1 billion, a 182 percent increase compared to the second quarter of 1999. In the first and second quarters of 2000, total profits for these 10 companies were \$20.8 billion, exceeding the total annual profits for all of 1999. Second quarter 2000 profits for Exxon Mobil was \$4.5 billion, a 276 percent increase from second quarter profits in 1999; for Chevron, their profits were increased 219 percent; for Conoco, it was 300 percent; Phillips Petroleum, 550 percent; Sunoco, 727 percent. Exxon, Chevron, and Conoco all reported record profits in the second quarter of 2000.

Stock prices for these oil companies have obviously increased significantly. The average stock price for the 10 largest oil companies has increased 14 percent. Companies with the largest increases in stock prices were: Phillips Petroleum, 43 percent; Tosco, 23 percent; Ultramar Diamond Shamrock, 20 percent. And in addition to oil companies, other companies have benefit from the increase in oil prices as well. For example, Halliburton, the world's leading provider of oil field services, saw their stock price increase by 34 percent from January 1 to September 15, 2000. All this, Mr. Secretary, while they are reducing production.

My question to you, sir, is the administration dealing with these domestic oil producers as well as with OPEC and non-OPEC foreign suppliers to make sure they are producing at the rates they should be to keep our prices down and our fuel stocks available?

Secretary RICHARDSON. Congressman, I have had numerous meetings with oil companies, big and small, urging them to increase production, urging them to get more product into the market, asking them what specifically we can do to help with their transportation and access and regulations to just get more reserve into the market, home heating oil, every possible product. Without trying to defend the actions of anybody, I do want to point out that a lot of these decisions they make on production are basically business decisions.

Mr. TIERNEY. I think their profits show that.

Secretary RICHARDSON. Yes. [Laughter.]

Their profit, you cannot compel them to increase production. You can urge them, you can jawbone them, and we have done that.

Mr. TIERNEY. I appreciate your answer, Mr. Secretary. My point is, and I think you have been very diplomatic, as is your bent, but the fact of the matter is that while we hammer away at OPEC and others, we have a problem right here at home from the big free marketers who do not want any government involvement. But they are not exactly doing things that would help this country at a time of crises. I think that is important to note.

Ms. Browner, we talked about refineries, and there has not been a refinery built in the Northeast area for that 25 year period because the companies have not applied. Does EPA have any regulations dealing with storage facilities?

Ms. BROWNER. For the bulk storage facilities and the underground storage tanks?

Mr. TIERNEY. Exactly.

Ms. BROWNER. Yes, absolutely.

Mr. TIERNEY. Can you tell me whether or not there have been any applications to increase the storage capacity in the Northeastern area in the last recent period of time?

Ms. BROWNER. We should answer that for the record. We think there probably has been. We are not aware of how much. So we will answer that for the record.

Mr. TIERNEY. Mr. Secretary, the Northeast Reserve is being planned and I know that there are two sites in New Haven, CT, and one in Woodbridge, NJ. The common concern, and I know the answer to this but I would like to hear you put it on the record, the common concern from people is will that reserve, because it is located in Connecticut and New Jersey, actually be beneficial to Massachusetts and points North if it becomes necessary to use it, and how will it get there, and so forth.

Secretary RICHARDSON. Congressman, it is for the Northeast. Your area will be protected. We are working out all those contingencies right now. The progress on setting up the reserve is going well.

Mr. TIERNEY. And last, the storage or suppliers, people involved with that have been saying they have a problem with what they call carry. In other words, if the price is higher in January than it is right now, again, these are free market people who want the Government to stay out of it, but they are saying now they have a problem and what they really need is an incentive. So they would like the Government to write them a check or give them a tax break to help them on that carry.

While I can understand and appreciate that, and I am really amused by their change in tone as to what they think the role of Government is here, would it not be somewhat more reasonable or fairer to the taxpayer if we gave them a low interest loan of some sort or a revolving loan process. Do you think that is worth doing? Do you think that is part of the solution to help them through this carry period, and is that a reasonable way to approach it?

Secretary RICHARDSON. I think loans, and we have tried to put them in touch with the Small Business Administration. A lot of these home heating oil operators, as you know, Congressman, because I attended a meeting in your district—

Mr. TIERNEY. You did and Mr. Major did, who is here, and I want to acknowledge him and Mrs. Shayjus for the great help that they were.

Secretary RICHARDSON. They do OK. [Laughter.]

Mr. TIERNEY. They do great.

Secretary RICHARDSON. I think ways to incentivize them are not harmful. We have not accepted the concept of a tax credit. It is being considered, a small tax credit to get them, for instance, to store more, to keep more in their stocks. They have not done so and I think at that meeting they explained why. They said prices are so high, if we stock, all of a sudden there will be price volatility and we are out of business, so we do not want to do that.

So I think a tax credit, modest, triggered, may be something that we are considering. Loans, certainly, government loans through the SBA are something that we partially have but perhaps could expand. I just do not think, Congressman, that these small home heating oil operators have been the villains in this whole process.

Mr. TIERNEY. No, and I am talking about the people that store it, the suppliers, and they are not so small in a lot of cases and they are looking to have their carry covered. I do not mind trying to resolve that problem, but I just want to make the point these are the people that want Government off their back. We are happy to get involved in the right amount of Government intervention, but perhaps a loan program might be better for the taxpayer than a give-away.

Mr. BURTON. The gentleman's time has expired.

Mr. LaTourette.

Mr. LATOURETTE. Thank you, Mr. Chairman.

Yesterday, Mr. Secretary, we had the oil companies here. And a chart, I am going to ask the staff to put up in just a minute, I think the representative was from Citgo, was who not at the hearing yesterday. But I made the observation that when I learned to drive we had high test and regular gasoline, those were your choices. Now this chart from Citgo was designed to illustrate all of the different blends of fuel that may be required to be stored in different parts of the country to comply with various regulations.

You talked about jawboning and working with the oil companies on issues of transportation. One problem that they talk about is the fact that when we get to the winter driving season you need this many blends of gasoline, in the summer driving season this many blends of gasoline. I just had a company in my district called Lubrizal come in and they want to pitch Mr. Perciasepe in a couple of weeks on a new product that they are making called Purinox. They claim that it reduces NOx emissions by 30 percent and particulate from diesel. I said this is great, means jobs, a lot of money for where I am from. And they were going to go out to Mr. Waxman's State. They said they were going to go pitch it to California, too, because they have some air quality regulations that some of the rest of us do not have.

Mr. OSE. That is my State, not Mr. Waxman's.

Mr. LATOURETTE. It is Mr. Ose's and Mr. Waxman's State, and many other people as well live in California.

Maybe this is for both Administrator Browner and you, Mr. Secretary. Can we maybe solve some of our infrastructure problems if we go back to the notion that whatever gasoline you decide, Ms. Browner, or your successor decides is the best for the environment during the winter and summer, that we go to that rather than having these I think 29 different blends of gasoline, if I understand it right. And whichever one of you wants to jump in.

Ms. BROWNER. I think the Secretary is telling me it is my area. We do not disagree with you. I think that part of the challenge is you need to separate out on this map those that are local that EPA has absolutely nothing to do with. And as you well know, a lot of cities, for a variety of reasons, have decided to kind of set their own gasoline recipe, Detroit being one of the older ones but there is a number of those up there. And when you talk about the 26 different blends, a large number of those actually are in fact local city decisions.

I will make a suggestion, I do not suppose it will be popular with all, but you could go to one clean gasoline standard for the entire country. Part of the issue occurs because for reformulated gasoline,

which is about a third of the country versus conventional gasoline, you do have issues in reformulated gasoline, depending on where it is sold in the country, in terms of weather and volatility. You could fix that by going to one clean gasoline recipe for the country. What that would mean though is that you would have places who do not necessarily need it to clean their air buying it, and that would be objectionable I don't doubt to some.

Mr. LATOURETTE. But my air does not stop at border of Ohio and Pennsylvania.

Ms. BROWNER. That is right.

Mr. LATOURETTE. It goes all over the country, and those of us in Ohio are blamed by those in the Northeast for polluting their air, and we blame the folks in Wisconsin.

But the argument that was made by the oil companies that part of the problems with spikes and delivery is we have all these boutique gasolines and they have got to swap out the pipelines and the tanks and everything else, it seems to me that could be minimized if we went to one blend.

Ms. BROWNER. Mr. LaTourette, I think it is important to understand it is Congress that named the cities that would get the cleaner gasoline. It was not the Environmental Protection Agency, it was Congress. So we would require a change in the Clean Air Act.

Mr. LATOURETTE. That brings me to my next point. I want to talk about the cities of Chicago, St. Louis, and Milwaukee. Again, when we had the oil companies here yesterday. I suspect, and they would not agree with me, but I suspect that they got caught taking a gamble in June. They saw that you had granted an enforcement discretion for St. Louis, and I think that they gambled that you would follow suit in Chicago and Milwaukee and they lost.

Ms. BROWNER. There was no basis for them taking that gamble. They do not use the same pipeline and the issues were different.

Mr. LATOURETTE. Maybe not. But since that time, and the question I have of you, have you had a chance to look at what the Congressional Research Service concluded relative to the statutory legality that was used to grant an enforcement for St. Louis and not in the other cities? Have you had a chance to look at that or have your folks looked at that?

Ms. BROWNER. Maybe there are two different Congressional Research Service memos. The one I have seen, and it may be the same one that you are referring to, looked at Midwest gas prices. I do not know that it looked at the legality of the situation in St. Louis versus the other cities. I am not familiar with that. But I will tell you why we did it for St. Louis. St. Louis had a pipeline go down and—

Mr. LATOURETTE. I know they did. The Explorer Pipeline and St. Louis got 70 percent of their gas from it. I just want, if you would, I am looking at the memorandum of June 28, 2000. If you have not seen that—

Ms. BROWNER. No, I have not. I have seen the June 16th one.

Mr. LATOURETTE. OK. If I could ask you and/or your staff to review it and respond to the Committee in writing as to their conclusion that the enforcement discretion exercised for St. Louis, MO, was in violation of CFR 80.73, and that not granting it for Chicago

and Milwaukee when requested was also suspect. So any thoughts that you have on that.

Ms. BROWNER. We would be happy to take a look at that.

Mr. LATOURETTE. Thank you. Mr. Chairman, my time has expired.

Mr. BURTON. Yes. Mrs. Schakowsky.

Mrs. SCHAKOWSKY. Thank you, Mr. Chairman. I wanted to focus, as did Mr. Kucinich, who I appreciate has allowed me to go first, and you, Mr. Chairman, as well, on natural gas. We face a real crisis of cost in Illinois. I showed this bill insert yesterday that I got in July in my bill from Nycor that showed we should expect that what we paid for \$410 worth of gas last winter we could expect to pay \$610 this winter. That was in July. We understand that the October prediction is going to be \$750, from \$410 to \$750. This is going to pose an enormous problem to not just poor families, but to ordinary working families in my district and in the service area of this utility company.

I have some basic questions about natural gas pricing. Considering we are talking about a 100 percent domestic market, why have the spot well-head prices doubled? I do not understand that. Let me just ask my questions. Why did production drop when the demand increase was predictable and predicted? Does the cost of natural gas track oil prices regardless of supply and demand? Is there any relationship at all between the cost of production and the cost to consumers?

I have to tell you, Mr. Hoecker, when I read your testimony I was concerned about a rather complacent attitude that I felt was expressed in that. You said that consumers are still saving money on natural gas compared to pre-competitive prices. You say that the Commission will be monitoring the gas supply and price situation very closely this winter to assure that competitive pipeline transportation markets continue to work in the public interest. I do not think we can explain to my constituents and consumers in our area that any of this is operating in the public interest. They are going to be wondering how the heck they are going to pay their gas bills, particularly when they look at the profits of the gas companies, the fact that it is entirely domestic.

I thought that maybe you could clarify this and hopefully reflect some of the urgency that I feel and I think many of my constituents feel.

Mr. HOECKER. Your question is a great question and it is one that sort of tracks the sentiment that we heard in California 2 weeks ago when we were there on electricity prices. We are very aware that this country runs on electric and natural gas, that we need reasonably priced and stably priced supplies of energy, no question about that. What I am hopefully getting across is that the commodity itself, natural gas, has been decontrolled. And there are lots of explanations as to why the price has varied this year compared to previous years. I know that is not very satisfactory to American energy consumers.

What the FERC can do about that is to encourage our colleagues at the State level—who are in charge of rate stabilization, and LIHEAP, and in terms of ensuring that their utilities make prudent natural gas purchases—to exercise their authority with re-

spect to retail rates. And when I say the interstate natural gas pipeline market, I mean exactly that. The piece of the pie that we regulate is the interstate pipeline system that takes the gas from the producer or the processor and delivers it to the city gate, to the Washington gaslights of the world that distribute it.

Mrs. SCHAKOWSKY. Maybe Secretary Richardson then can deal with the larger question of natural gas prices if you are only dealing with the pipeline.

Secretary RICHARDSON. Congresswoman, I am sorry. I was trying to have a conversation with—

Mrs. SCHAKOWSKY. I think it is a similar question, why was production so low when we knew that we were going to have a problem and now prices are so high that we have a crisis?

Secretary RICHARDSON. Demand is high, No. 1. No. 2, U.S. gas production has been relatively flat. Gas storage levels have been below normal. And, basically, alternative fuel markets have been very tight. So I think you have those four problems and the price issue and the capacity issue.

Now the President will sometime very soon announce some initiatives from his Interagency Task Force on Natural Gas. We, as I said, Congresswoman, have a proposal before the Congress on what is called delayed geological expensing which will enable the natural gas producers to drill more and have an incentive to drill more. We also have up here infrastructure improvements for pipelines. As you know, there have been several pipelines that have burst. We need to find ways to repair them, to get them functional, to get them operational. That is an initiative that we need to deal with, too. But those are basically the four reasons why we have this spike in prices.

Mrs. SCHAKOWSKY. We look forward to an announcement by the administration. Thank you.

Mr. KUCINICH. Mr. Chairman.

Mr. BURTON. Yes?

Mr. KUCINICH. Mr. Richardson has stayed about 1 hour and 15 minutes over what he originally was supposed to stay. I just wondered how will the Chair proceed here?

Mr. BURTON. After just talking to you, there are two more people that have questions for him. I think Mr. Sanford and myself and maybe one other. So that will be about 10 minutes. So if you could stay 10 minutes, we should have you out of here, Mr. Secretary.

Ms. BROWNER. Do I get to go too?

Mr. BURTON. Well, we have a few more questions for you. If you don't mind staying for maybe another 25 or 30 minutes, we should have everybody out of here. But I know he has to leave. So if we can get you through in 10 minutes, then we will try to get you out of here right away.

Mr. Sanford.

Mr. SANFORD. I thank the chairman. I apologize for the delay. I guess I have just a couple of questions for both of you. It was interesting, the gentleman from Vermont I think raised a very interesting point, and that is we have an administration that has said it advocates a rules-based system that comes with WTO, we have a Trade Representative who is constantly arguing that very point, and yet we have not seen a lot of activity from the standpoint of

doing something about OPEC members and the cartel that they hold.

So I would simply ask you, as Secretary of Energy, have you lodged a formal complaint with the WTO based on the cartel that is held by OPEC?

Secretary RICHARDSON. No, and I would not do so, Congressman. That would not be helpful. I do not think it constitutes WTO violation.

Mr. SANFORD. So a cartel held by OPEC colluding on prices does not constitute a breach of the rules-based system as outlined by WTO?

Secretary RICHARDSON. Our view is what is desirable is the free flow of oil based on market forces. That is our position.

Mr. SANFORD. That is a wish list. That obviously does not exist given what OPEC is doing.

Secretary RICHARDSON. Well, as I said before, OPEC, the last three meetings they have held, they have taken decisions that are positive for the international community—more production. We encourage them to do more because those are the signals that are coming from this country and from the world. I prefer to maintain a dialog with them rather than fighting them in courts.

Mr. SANFORD. OK. So no action taken on WTO. How about encouraging our administration to eliminate the no fly zone over Iraq?

Secretary RICHARDSON. Why would we want to do that?

Mr. SANFORD. OK, no. How about elimination of military sales to those OPEC members based on the fact that they are colluding on prices of fuels coming back to the United States?

Secretary RICHARDSON. We, the United States, have a lot of strategic interests in the Gulf, including the containment of Iraq. We have strong security relationships with Saudi Arabia, with Kuwait. That would not be in our interest.

Mr. SANFORD. So that would be an action that you would not be willing to take?

Secretary RICHARDSON. No.

Mr. SANFORD. And similarly, if not a case in the courts through WTO, how about some kind of revoking of the normalized trade relations that they now enjoy with our country? Does that fall under the same category?

Secretary RICHARDSON. Same category.

Mr. SANFORD. OK. I do not mean to be harsh on this, but my point is that we are unwilling as an administration to ask these things of a foreign country, in this case a group of foreign countries, colluding on oil prices to America's detriment, while at the same time, the remedy that you are offering in part suggests invading the Strategic Petroleum Reserve. To me, that does not make sense. In other words, we will put our own military at risk by bleeding down the Strategic Petroleum Reserve but we will not ask this of a foreign country.

Secretary RICHARDSON. The President will decide in the next few days what to do on the Strategic Petroleum Reserve. This use of the reserve has been, as you know, extremely limited. It is a very important decision but it is a few days away. It is based on whether the President believes in the home heating oil crisis the Amer-

ican consumer would be harmed. And he will not hesitate to take the steps that are needed.

So, Congressman, we have been very, very judicious in the use of the Strategic Petroleum Reserve. There was enormous pressure to use it all year and we haven't.

Mr. SANFORD. I understand that and I respect that. But my concern is we have been even more judicious in asking allies in the Middle East to do certain things than to use our own Strategic Petroleum Reserve, which is I thought there for a very specific reason, and that is to be there in the place of military contingency.

Secretary RICHARDSON. Congressman, we asked Saudi Arabia to increase production. They did. We asked OPEC countries to increase production. They did. That is good not just for the United States, but for world markets. Now that does not mean we should rely on their imported oil or their activities. But they are a reality. They control a large supply of the world's oil. Many of those countries we have strong relationships with—Saudi Arabia, Kuwait, Indonesia, Nigeria, United Arab Emirates, Qatar. We have strong relationships with them.

Mr. SANFORD. I understand.

Secretary RICHARDSON. There are some that we do not, we do not talk to them—Iran, Iraq, Libya.

Mr. SANFORD. Right.

Mr. BURTON. The gentleman's time has expired.

Mr. SANFORD. I had some more zinger questions though. Thank you, Mr. Chairman.

Mr. BURTON. Let me just take my 5 minutes and let you get on your way, Mr. Secretary. You just alluded to the Strategic Petroleum Reserve. Lawrence Summers and Mr. Greenspan oppose using that. And of course the Vice President today called for releasing fuel from the Strategic Petroleum Reserve. You said the President would be making a decision on that. Do you have any opinion you are going to express to him?

Secretary RICHARDSON. Mr. Chairman, any advice I give the President is confidential. You know that. I would like to say that Secretary Summers and I share the same view, that the use of the Strategic Petroleum Reserve is very selective, that it has to be under the right circumstances. I think our views are fairly similar, and they have been. I saw that article. The President has a wide range of options, including some of those that the Vice President proposed, and a decision on whether to use the Reserve will be made shortly, in a few days. That is all I can say.

My advice to the President is based on the fact of whether we believe the American people would be harmed by, for instance, home heating oil shortage, by high energy prices. I just had consumers and truckers and a lot of people talk to me. There are serious problems.

Mr. BURTON. I think you have answered our question. I understand the concern that you have for the American people and the heating oil problems. But I guess after 2 days of hearings and listening to the people who testified yesterday, there is a divergence of opinion on where the problem lies. The energy producers say there is environmental regulations that are strangling them, there

is not enough pipeline capacity. There is a whole host of things that they said which has been refuted or disagreed with today.

But here is how it appears to me, I do not know if it appears so to my colleagues, but it appears to me that there really is no strategy for dealing with the natural gas problems. We have got in our forests out West a lot of government-owned land where there is great natural gas reserves which could be very efficiently pumped out of the ground at higher levels than what they are getting in the pipeline now. But we are not exploring them. So there does not appear to be a strategy for natural gas. There does not appear to be a strategy for the problems that the reformulated gasoline and the many variety of fuels that are having to be made are causing. There appears to be no strategy for increasing our domestic production of oil. We keep talking about dependency on foreign oil, we have oil that could be pumped out of the ground in various parts of the country environmentally safely that we are not going after. And we continue——

Secretary RICHARDSON. On that, Congressman——

Mr. BURTON. Well, let's just go through all these things and then you can respond.

Secretary RICHARDSON. OK.

Mr. BURTON. So we are not reducing our dependence on foreign oil. There is no strategy for speeding up the process of getting permits for electric power plants, according to the people yesterday. The comments were that, with respect to the transmission lines, it is taking up to 7 years. I will not go into all that again, but you can respond to that. And there seems to be only a patchwork strategy for dealing with our home heating oil problems, such as the Strategic Oil Reserve or the new storage facilities you are talking about.

So it is frustrating to me when we have a hearing to hear one thing from the industries and another thing from the Government. And then when we, as Congressmen and Senators, try to put all this together and try to decide what we can do to help, we get some suggestions from you that are limited to legislation that is pending before the Congress, some of which is being held up by people in the other party, and we say what can we do to help the American people. So I would like for you just to respond to that, if you would.

Secretary RICHARDSON. Congressman, I was not at your hearing, but I have heard these complaints before. I think what we need is we need action. You need to pass a number of initiatives that some of these industries even advocate.

Let me start out with one. The industry has wanted oil and gas credits for marginal wells. The President has proposed that. We are for that. The Congress has not passed that. We have proposed tax credits for energy efficiency, more funding for alternative sources of energy, as I said, boosting our own people. We have proposed electricity deregulation which most utilities in the country want. For there to be whining and blaming the Government I think is just wrong.

I think what you as the Congress needs to do, and I say it respectfully as somebody who was with you for 14 years, is sort out the different points of view but look at the facts, and the fact is that the President's initiatives on a wide variety of supply and de-

mand energy policies have not been passed. You cannot blame us for not having a policy when a lot of it, like elemental, the reauthorization of the Strategic Petroleum Reserve, this Northeast Home Heating Oil Reserve, is not passed, is not approved.

Mr. BURTON. Well let me just conclude by saying that we have got a problem. This winter there is going to be a spike in gas and oil prices. Diesel fuel is up. The truckers around the country are screaming to high Heaven and it is evidently going to get worse with the new EPA requirements, at least this is what we are being told. And so all I can say is that I hope we can——

Mr. TIERNEY. Would the gentleman yield?

Mr. BURTON. No, I will not.

Mr. TIERNEY. Are you going to just continue to misstate what we have been listening to all afternoon, or at least give Ms. Browner an opportunity to once again set the record straight?

Mr. BURTON. You had 7 minutes. Your time has expired.

Mr. TIERNEY. Sir, you have had more than ample time also. But you are using it to create a misstatement of the facts.

Mr. BURTON. You are out of order. I am the chairman of the committee.

Mr. TIERNEY. That does not give you license to go out there and misstate the facts or to go on and on beyond your time. Either please give her the time to answer you to set the facts straight or stop.

Mr. BURTON. We are going to give Ms. Browner the time to answer. Secretary Richardson is under time constraints and I was making my comments within the allotted 7 minutes which you had, which is more than the 5, and you interrupted me.

Now, as I was saying, Mr. Secretary, I hope that we can reach some kind of agreement so that those spikes in oil and gas prices this winter will not make a life unbearable for a large segment of our population.

I want to thank you very much for staying beyond the time that you said you could. We really appreciate your being with us.

I will now yield to Mr. Kucinich.

Mr. KUCINICH. Thank you, Mr. Chairman. Secretary Richardson, thank you. And I want to thank again the other members of the panel.

In listening to this exchange today, a few things have become obvious. With Secretary Richardson's leadership, we asked OPEC to increase production, and they did. The United States asked non-OPEC nations to increase production, they did. The United States asked domestic producers to increase production, and they have decreased production. And as some of them have added, while they are decreasing producing, they are saying the problem is the Clean Air regulations. Domestic producers have decreased production and their profits are going through the roof. Which means, when they come back to the market with that oil they are going to make even more money. Here is one Member of Congress who objects to that.

I would hope that the administration knows that they have another tool at their disposal if these domestic oil companies do not respond, and that tool is price controls. Now I know that is heresy in a free market economy. But as Mr. Hoecker said earlier, there are limits to what a free market can do. Free market is wonderful,

but if people cannot afford to get to work in their cars, or they cannot afford to heat their homes, then we have to ask some questions about the free market. We do not just keep going back to the people and telling them to pay more. That is not fair.

Mr. Hoecker stated that natural gas supplies for immediate consumption are short. How many months has FERC known about this shortage, Mr. Hoecker?

Mr. HOECKER. Well the shortage, as you put it, is a shortfall in winter storage. We have been watching it and it is largely within historic tolerances. Right now, the gas storage for the Nation generally is around 70 percent full, which is down about 10 percent from last year. The experts that I have consulted tell me that it is going to pick up dramatically in the next few weeks.

Mr. KUCINICH. Well, Mr. Secretary had stated that production is flat. I am asking you if FERC has investigated the possibility that natural gas companies are under-producing natural gas to drive up corporate profits, because that is what it seems the oil companies are doing.

Mr. HOECKER. I can tell you that, based on our understanding of the market, gas producers shut in their wells and basically went home. A lot of people left the business at a time when natural gas at the well-head was being priced at \$1.60. The market was not there for them, they quit producing. And now we are living with the consequences of that.

Are they continuing to under-produce? At least on the gas side, and a lot of these folks are the same folks that produce oil domestically, the rig count has doubled just in the last few months. So they are back out there again. The difficulty is that the supply response is going to lag 12 or 14 months until it hits the market. When it does that, prices will come back down. I would also say that the——

Mr. KUCINICH. Excuse me.

Mr. HOECKER. Sure.

Mr. KUCINICH. You assume prices are going to come back down.

Mr. HOECKER. I assume. I assume. I have to mention again that we do not regulate the commodity. But this is what I have found out because I am as concerned as you are, sir, about the price of natural gas.

Mr. KUCINICH. What can you do when these gas companies are pricing three times what they have priced before? And why is the supply response so slow? What can you do?

Mr. HOECKER. What can we do? We can make sure that the interstate pipeline market is equipped to deliver those supplies as soon as they come back on-line. We have a very good, very efficient, very adaptable interstate pipeline system that is very competitive. Right now, the gas purchasers in your hometown can buy from different suppliers, from different basins. It is a very workable system. They can hedge, they can engage in financial instruments to protect themselves against risk.

Mr. KUCINICH. You regulate interstate rates, right?

Mr. HOECKER. Interstate transportation rates.

Mr. KUCINICH. Right. You regulate those.

Mr. HOECKER. Yes.

Mr. KUCINICH. OK. Can you do anything about the price of the interstate rates? You monitor them.

Mr. HOECKER. We think the price of interstate transportation is regulated and we have rate cases all the time. Could we, for instance, cap those rates or drive them down arbitrarily? Our statutes require us to do investigations and make those decisions based on costs and the——

Mr. KUCINICH. Final question. Will you investigate?

Mr. HOECKER. We will look at them, yes, sir.

Mr. KUCINICH. Thank you.

Mr. BURTON. We are just about near the end here. We will yield to the people who are remaining and then let our guests go home.

Mr. Ose.

Mr. OSE. Thank you, Mr. Chairman. I want to go back to the electrical markets with Mr. Hoecker, if I could.

This is a map, and it is difficult to read, but this is a map of the Southwest United States. As you can see there, you have the Desert Southwest region, you have the Sierra Nevada region, you have the Rocky Mountain region, and you have the Upper Plains region. If you look in the Desert Southwest region, you will see a number of plants which I highlighted earlier, those being Elephant Butte, Deer Creek, Parker, Davis, Hoover, and Navajo. And with the exception of Navajo, those are primarily hydro facilities.

I want to go back to my central point here, and that is that these are facilities that are under the control of the Bureau of Reclamation, which is one of the largest electric generators in the country just by virtue of having all these facilities. The thing I specifically want to reference is that in June and July of this year, compared to June and July of last year, you will note a significant reduction in the generation from Glen Canyon has occurred. And that corresponds almost exactly with the electric price spiking in southwestern California around San Diego.

So the issue is why did the Bureau of Reclamation, which is an agency of the Interior Department, reduce by over half the electric generation out of Glen Canyon in the face of severe price dislocations in San Diego?

Mr. HOECKER. Again, it is information I do not know. I suspect it is because of the supply of water. But in all my hearings in California and investigations about California, the deliberate withholding of generation capacity from out of State is something that, frankly, no one else has brought up.

Mr. OSE. I want to put to rest the supply of water issue, because I checked that. Along the Colorado River, which is where Glen Canyon is, where Hoover is, all along that Colorado River Basin, there was no reduction at Hoover, there was no reduction at these other plants up and down the Colorado, I mean, 2 or 3 percent but not 50 percent.

So my question comes back, why did the administration allow a 50 percent reduction in the generating capacity at Glen Canyon in the face of severe price dislocations in San Diego?

Mr. HOECKER. Well, with all due respect, that is something you will have to ask the administration.

Mr. OSE. OK. I know the answer. I just wondered if anybody else did. There was a law passed in 1991, Public Law 102-575, which

the gentleman from New Mexico actually voted for, which directed the Department of Interior to engage in some work along the Glen Canyon stretch, the purpose of which would be to analyze the impact on the environment of low flow releases from Glen Canyon. And it is very interesting because it is actually a very, very appropriate use of Government authority to investigate this. And in the interest of protecting the consumer, the legislation gives the Secretary, in conditions of—let me find the exact words. “The Secretary may deviate upon a finding that deviation is necessary and in the public interest to respond to hydrologic extremes or power system operation emergencies.” Now I suspect that what happened in San Diego qualifies under a power system operation emergency. There was no hydrologic extreme.

So what we had was legislation passed by this Congress, supported by Mr. Richardson, by Mr. Waxman, and others that said analyze this, but keep in mind that if we have price dislocations in our markets that we serve, you have the ability to waive the requirement and jack up the generating capacity. Those circumstances came to pass and this administration ignored them. In fact, for the first time on Monday of this week they actually did grant a waiver, and the generation at Glen Canyon did in fact go up in response to significant increases in demand in California.

I want to know why in June, July, and August—we do not have the August number here, but I can guarantee you it is going to be similar to the 200-odd thousand there—why in June, July, and August this administration sacrificed the interests of electric ratepayers in San Diego when they had the freedom to answer the call for electric generation demand.

Mr. HOECKER. Well, you have me at a loss. I do not know the answer to that.

Mr. OSE. Mr. Chairman, my time has expired.

Mr. BURTON. If you could get that information for us, it would be very helpful.

Mr. HOECKER. I will ask the Department of Interior to help provide it.

Mr. BURTON. Mr. Tierney.

Mr. TIERNEY. Mr. Chairman, first, I would like to submit for the record three documents. The first is a statement from the auto makers calling for a clean diesel rule, the second is a press release from the Engine Manufacturers Association, and the third is comments from the State and Local Air Pollution Administrators. Each of these groups support the EPA low-sulfur diesel rule.

Mr. BURTON. Without objection.

Mr. TIERNEY. Ms. Browner, I was listening to what I thought was a mischaracterization of the testimony we have heard today in terms of EPA's role in this situation. I would like to give you just a moment or two to sort of recap for us and set the record straight for the third or fourth time so that maybe we don't have to hear it again.

Ms. BROWNER. Thank you very, very much. First of all, with respect to permitting delays. You heard testimony apparently yesterday about all sorts of delays up to 7 years. That is not because of any action by the Environmental Protection Agency. We do not site transmission lines. We do not permit transmission lines. If you ac-

tually look at the numbers, and we will provide all of the details to you, and you are free to come and look at all of our records, we are moving electric generating permits through the system, in cooperation with the States, on a 12 to 18 month basis. Whatever delays there are, they are not because of the Environmental Protection Agency.

Second, I think it is important, and I thank the Congressman for noting the support we do have on our proposal, but we have not adopted a diesel standard yet. And for people to be talking about what this will do before we have made any final decisions strikes me as somewhat premature.

Our proposal would require these clean diesel fuels in 2006—not tomorrow, not next year, but almost 5½ years from today. We are working with those in the industry who will work with us, as we did on low-sulfur conventional gasoline, to incorporate a whole host of flexibilities. I would note that on our low-sulfur gasoline rule, this affects almost every refinery in the country. We get sued regularly at EPA, by environmental groups, by businesses, for the decisions we make. We were sued by one small refinery on that rule. Not all of them, one. And we are looking to resolve that issue. I think that is an indication of how well we worked with the industry to both meet the public health standards and provide the flexibilities.

There are other issues, Mr. Chairman, that you have mentioned that I still would like the opportunity to clarify. I know you want to have an accurate record. For example, you made reference early on to the dyes and some other issues. I do not want to use the kind gentleman's time, but hopefully I will be able to share that with you before the hearing ends.

Mr. TIERNEY. Thank you. I think somebody referred to it as corporate whining. I probably would not be that strong in the wording, except to say that I think a lot of times businesses, because that is their job to make a profit, they do these preemptive strikes in trying to do something that they do not want to do.

Mr. Hoecker, you mentioned in the course of your testimony that you could no longer effect the amount of gas that was in the supply because it had been decontrolled. Was there a time when there was some control or Government regulation on the supply of gas?

Mr. HOECKER. There was. Between 1954 and the late 1970's when the Natural Gas Policy Act was passed and for some period after that because price controls were phased out.

Mr. TIERNEY. And if we had that law still in effect today, would there have been some remedial action that could have been taken to avoid what we have just gone through, a period of really depletion of supplies and a lag period waiting for it to build back up?

Mr. HOECKER. Ironically, when that law was in effect, the consequence of it was to create a chronic short supply in the country. We had price controls at a point when production was continuing to decline. Our reserve picture was very bleak in the late 1970's. We did not allow natural gas to be used for boiler fuel uses, that is, for electric generation or industrial purposes. We did not allow natural gas to be used for a variety of things. And we were curtailing supplies because we thought it was a very, very limited resource.

When the price of natural gas was decontrolled, what we found is that we had an ample supply. People went out looking for it. And I think I can say with confidence that the industry expects natural gas supplies to be durable for the next half century, if not a whole century.

Mr. TIERNEY. Yet we still find ourselves in a situation though we have plenty of it, we cannot seem to get it when we need it.

Mr. HOECKER. Well, what happens is that when you create a market you live with some of the vicissitudes of that market. To use the words of the CEO of Anadarko yesterday when I was at the conference in Ohio, he said the real energy crisis was when natural gas was at \$1.60 and oil was at \$10 a barrel. For them, that is true, because they just got out of the business. A lot of small producers especially quit producing. That is an unfortunate situation because cheap energy does two things: one, it diminishes production, and it also disincentivizes American consumers from being efficient and conserving their energy resources.

Mr. BURTON. The gentleman's time has expired.

Mr. TIERNEY. Thank you both.

Mr. BURTON. Let me just say, before I yield to my colleague, that is one of the reasons why you need a long term energy policy. Because if you have these wide fluctuations in the spot price of oil or gas, you have to have a long term policy that sets some kind of consistency. And we do not have that.

I yield to my colleague, Mr. LaTourette.

Mr. LATOURETTE. Thank you, Mr. Chairman.

Chairman Hoecker, Congressman Kucinich was here earlier, I come from the same part of the country and the banner headline of today's Cleveland Plain Dealer was that people in greater Cleveland are going to pay \$70 a month more this winter for their natural gas bills as we heat our homes going into the winter. I listened very carefully to your responses to everybody that has asked you questions, but I want to talk about pipelines, which I think are within the purview of your organization.

If the producers were finding it economically feasible to produce, do we have sufficient pipeline capacity today to meet the needs particularly in the Northeast part of the country?

Mr. HOECKER. I believe we do. I think we are moving in the right direction. The Commission has certificated 800,000 miles of interstate natural gas pipeline since 1995. That represents a delivery capacity of about 7 billion cubic feet a day. And as the demand for natural gas increases, we expect to get requests for more interstate pipeline capacity. But we have certificated some major facilities in an environment where landowner objections and environmental problems are very important and those folks are very vocal, and we have to take that into account.

Even pipelines that we have certificated for the Northeast are not being built at their original design capacity because the project owners have not been able to find a market for some of that original proposal. What that tells me is that we are doing it just about right. That means that we are going to continue to consider applications for more capacity but that we are not going to do it at such a rate that we are going to create a capacity glut which is going to cost consumers a lot of money.

Mr. LATOURETTE. You talked a little bit earlier about the natural gas folks having the ability to hedge. Are you familiar with the term interruptible contract?

Mr. HOECKER. I am.

Mr. LATOURETTE. Could you explain just for the committee's record what that is and how those work.

Mr. HOECKER. Well, an interruptible contract for pipeline transportation simply means that you buy at a lower rate and you take the risk of being curtailed at some point if supplies are short or if capacity is short.

Mr. LATOURETTE. In all markets that are volatile, folks use things like hedging and futures to stabilize prices. Are those tools available to the natural gas industry?

Mr. HOECKER. They are very available in the natural gas industry, yes.

Mr. LATOURETTE. Are there any disincentives that you are aware of—governmental, tax, or otherwise—that prevent or inhibit the natural gas folks from becoming involved in hedging or futures to stabilize the price of natural gas?

Mr. HOECKER. The natural gas folks, by that you mean?

Mr. LATOURETTE. The producers.

Mr. HOECKER. The producers. No, I am not aware of any.

Mr. LATOURETTE. Thank you, Mr. Hoecker.

Mr. Chairman, I do not have any more questions. I would just ask unanimous consent that the CRS report of June 28, 2000, that I was chatting with Administrator Browner about be included for the record.

Ms. Browner, I have made a copy for you, too, so that you can take that with you.

Ms. BROWNER. Thank you.

Mr. LATOURETTE. And if somebody wants the balance of my time, I am happy to yield it to them, or I will shut up and yield back the balance of my time. Mr. Ose from California, who shares California with Mr. Waxman, as we all recall—[laughter]—I would be happy to yield the balance of my time to you.

Mr. OSE. Thank you, Mr. LaTourette. The folks from Ohio have always been generous, and I appreciate it.

Ms. Browner, do you think we need more electrical generating facilities in California?

Ms. BROWNER. I would not want to pretend to be an expert on this issue.

Mr. OSE. But based on our summary's experience.

Ms. BROWNER. Based on what I have read and what I have heard, I certainly think that is a question that is worthy of very serious consideration. But I in no way would want to—I am not an expert on issues like that. I can certainly talk to you about, if you want to have more generation, what might be some of the cleaner types of generating facilities. But I am not an expert on the demand side.

Mr. OSE. Mr. Chairman, I see Mr. LaTourette's yellow light has come on. We will come back to the cleaner generating facilities on my next round. Thank you.

Mr. SANFORD. Yes, ma'am. First, let me just check off the list, I have got a bizarre question I have always wanted to ask you.

That is, Al Gore's book "Earth in the Balance," and all that sort of thing, there has been so much talk about a basically minor portion of that book that dealt with if you increase the tax on fossil fuels, you could basically do more to clean up the environment than anything else you could do out there. Agree? Disagree? Where are you on that?

Ms. BROWNER. I think the work of, and I am sure the Vice President would agree with this, of cleaning up the environment requires a wide array of activities and tools, and that this administration has been doing its level best within the authorities granted us to do just that.

Mr. SANFORD. But you would agree it would be one of the tools?

Ms. BROWNER. I did not say I agreed or disagreed.

Mr. SANFORD. Well, I am asking you to pick one.

Ms. BROWNER. I do not want to. [Laughter.]

Mr. SANFORD. Fair enough. Touche. That is what these exchanges are all about though is trying to get to the bottom line of where folks—

Ms. BROWNER. I am not in charge of those policies. Again, I am really happy to talk to you about clean air.

Mr. SANFORD. Well that is what we are talking about. The argument was that if you increase the tax on fossil fuels, you could do more to clean air than anything else you could do out there. I am asking your opinion on that.

Ms. BROWNER. I will tell you everything we are doing to clean the air your citizens and all the citizens of this country—

Mr. SANFORD. I am sure you are doing many different things. But I am asking your specific opinion on that one thing.

Ms. BROWNER. I am doing everything I can within the authorities Congress has granted me.

Mr. SANFORD. So you just do not want to answer the question.

Ms. BROWNER. I am answering it within the area of my expertise and—

Mr. SANFORD. I understand you are choosing not to answer it. But I was just asking for your opinion.

Ms. BROWNER. Sir, I have an area of expertise and I am more than happy to speak to my area of expertise. I have the utmost respect for our Vice President. He has been at the forefront of virtually every public health environmental issue in this country.

Mr. SANFORD. And I was not downing him. I was simply asking your opinion on that part of the book. And you are saying you choose not to answer. Fair enough.

Second question, supply and demand. Economics 101 would say supply is in part controlled by regulations around that supply. In other words, that is the funnel through which supply reaches end product. There are all kinds of unintended consequences that go with any piece of regulation. Since that piece of regulation is out of bounds in terms of your willingness to answer it, I would ask—

Ms. BROWNER. There is no regulation of that sort at the EPA.

Mr. SANFORD. We're going there right now. That is, if you think about the different pieces of regulations that have been promulgated by the EPA, some have had good consequences in terms of raising or lowering fuel prices, some have had bad consequences.

And I am asking you to do the David Letterman routine, which is give me the top two that you think have raised fuel prices the most, and the bottom two that have lowered fuel prices the most.

Ms. BROWNER. Can I suggest that these are complex issues. They do not lend themselves, with all due respect, to a David Letterman routine. I am happy to talk about the cost and the benefits of—

Mr. SANFORD. OK. We can take the David Letterman reference out. But I would just ask if you would pick one or two that had some very positive consequences.

Ms. BROWNER. Cleaner gasoline. Without a doubt, cleaning up the Nation's gasoline. Removing things like toxics, benzene, sulfur are some of the most cost-effective things we can do to improve air quality and to protect the public's health, to reduce respiratory illness, to reduce premature death, to reduce asthma attacks in our children. They are without a doubt some of the most cost-effective things that we can do.

Now I said in my opening statement, and I am happy to say again, I am the first to recognize that when we move forward to protect the public's health, to protect our environment, there are costs. But they are pennies compared to the benefits that clean air is bringing the people of this country. And there is study after study, and I am not just talking about EPA's study, there are studies after studies that—

Mr. SANFORD. Sure. And I would not dispute those at all.

Ms. BROWNER. And as one member noted earlier, the most fascinating—

Mr. SANFORD. If I might, in that I only have 5 minutes and we are down to about 1 minute left. If you were to pick out one thing wherein there was an unintended consequence of EPA that resulted in higher costs to the consumer, what would that one thing be from the standpoint of fuel price?

Ms. BROWNER. I will give you an example actually outside of the Clean Air program. I will give you the example of brownfields. Without a doubt, when this Congress adopted the Superfund legislation almost 16 years ago, an unintended consequence of that legislation were the brownfield sites, the lightly contaminated sites that the developers, the bankers, the lenders, the cities would not come to address. Now, fortunately, we have had a program to try and solve that. We need Congress to give us some legislation. And I do not dispute your premise that there can be both positive and unintended consequences. I think that is a clear example of it.

One of the things we did—and Mr. Chairman, if I might have a little bit of extra time here because I think this is an important issue and I am sure the committee does, too—when we were setting the new tailpipe emission standards for cars and SUVs and the fuel standards—that is what actually comes out of the tailpipe, it is the catalytic converter, it is the engine, it is the gas you put in that gets you the actual air quality benefits that you breathe—we spent a lot of time, I personally spent a lot of time with both industries that would be affected asking them how we could avoid unintended consequences. And I will give you an example of an unintended consequence that I believe has, in fact, been avoided.

Detroit told us over and over again that they are about to have a clean diesel engine for cars. They have got it in Europe, they can

bring it here, it could be two to three times more fuel efficient. But we had to structure our standards to allow for that clean diesel engine. And we did that, and they have said that repeatedly.

We set up the program to meet the public health benefits. We did not change anything we asked for on public health, but we avoided a consequence of keeping those engines out. Now if we are going to bring those engines in, we had to do that last year, this year we have to get them the clean diesel gasoline, and that is the second piece of it.

But we do look at both the intended consequences and the unintended consequences.

Mr. BURTON. The gentleman's time has expired.

Before I yield my time to Mr. Ose, let me just say that we are going to give you whatever time you need to respond to anything that we have talked about earlier.

Ms. BROWNER. Great. Thank you.

Mr. BURTON. But you made the point that they have only received one application for a new refinery at the EPA in the last 25 years, suggesting that the lack of refinery capacity is industry's fault. It is so unprofitable to build a refinery in this country that there really is not much point in submitting an application because of the requirements. You can respond to this after Mr. Ose finishes. This was I believe a misleading statement. And there is no strategy for dealing with the fact that the refineries are strained to the breaking point and they would like to expand and/or build new ones.

Ms. BROWNER. If I could—

Mr. BURTON. Well, I am going to yield my time and then you can respond as you wish.

Mr. Ose.

Mr. OSE. Thank you, Mr. Chairman.

Ms. Browner, we started to discuss just briefly the air quality issue and what the particulate matter discharge would be from any given facility. In my district in California, we are under construction on a gas-fired turbine. I think the projected generating capacity being somewhere around 400 or 500 megawatts.

Ms. BROWNER. That is pretty common.

Mr. OSE. The issue there is that the nitrous oxide emissions on that plant will be about one-twelfth of the emissions from a plant of similar capacity elsewhere. Now the challenge that I see, and I really want to talk about the Prevention of Significant Deterioration program, because the challenge I see is that if we are going to encourage industry to create these plants that are so much more positive on a relative scale for the environment and that can provide peak or swing power for our economy, one of the things it seems to me we need to do is bring some certainty to that process on the PSDs.

Now in this particular plant's case, it went through local jurisdictional review, the board of supervisors there passed on it, there was an environmental document, everything was real clean, simple, done. And then the current PSD process allowed a window after that local review for someone to file an appeal. And the result of that was an individual who lived roughly 100 miles away came and filed an appeal over the, if I recall correctly, the air quality im-

pacts. And that cost 4 months immediately; in other words, there was an immediate shutdown of construction. The appeal was eventually denied on the basis of lack of factual basis——

Ms. BROWNER. I think on the basis of standing. The complaint was found to have no standing.

Mr. OSE. All right. The issue that I have is, is it possible for us to take the PSD appeal process and correlate it to the appeal process in California law under SEQUA so you do not have that extension, if you will. Like, you have the SEQUA appeal process right now, then you have the PSD appeal process. Is it possible for us to take the PSD process and correlate it to the SEQUA process?

Ms. BROWNER. About half the States have done that, and we are fully supportive of that. California has not chosen to do it.

Let me back up for a second because I think this is where some of the confusion may exist between what people said yesterday. All but one State now handles air permitting for all facilities. It is not EPA, in the first instance. They use the Federal authority, but they handle the day-to-day permitting process—application, review, and granting. For the one State we do it, we also do it for Puerto Rico.

About half of the States have chosen to handle any appeals that may come as a result of a permitting decision, half have not. If they choose not to, then we are required to handle the appeals process.

Mr. OSE. Can I ask your indulgence. My time is about to expire and I want to go to one other question. And then the chairman is going to allow you to respond——

Ms. BROWNER. The chairman said I could have whatever time I needed.

Mr. OSE. The other issue I——

Ms. BROWNER. Excuse me. With all due respect, you have made some statements that I think would benefit from an explanation.

Mr. OSE. And I am very interested in your response.

Ms. BROWNER. I would like to do it on the record in public, because this is a statement about an agency that I run and I feel like we do not have the full story.

Mr. OSE. I am just looking for what can we do legislatively to try and correlate those.

Ms. BROWNER. One possibility, as I have already pointed out, is that half of the States handle the appeals process. California has chosen not to. We are happy to work with them on doing it.

Mr. Chairman, I really feel strongly about setting something straight here.

Mr. OSE. My only other question was——

Ms. BROWNER. The chairman said I could.

Mr. BURTON. We are not going to stop the clock on you.

Ms. BROWNER. I am going to be sitting here alone. I can see what is coming.

Mr. OSE. No, you are not. I am going to be here.

Ms. BROWNER. Mr. Tierney is going to stay with me.

Mr. OSE. I will commit to staying because I am interested in your answer.

Mr. BURTON. Well finish so she can answer.

Mr. OSE. OK. My other question was that we have a choice of whether to import oil from foreign trading partners or increase pro-

duction somewhere, somehow here domestically. The question that I have is that on a relative scale in terms of environmental consequence, are we better off importing oil where we do not have the various air quality protections from foreign sources, or are we better off from an environmental standpoint producing more oil here domestically subject to all of our regulations? It is obviously a hypothetical.

Ms. BROWNER. I think that is a legitimate question.

Mr. BURTON. The gentleman's time has expired. We will allow her to answer all of these questions.

Ms. BROWNER. I think that is a complicated question and I think it is complicated by many factors. For example, the whole issue of greenhouse gases is a global problem. It does not really matter where the greenhouse gas comes from. We all will experience the consequences of the warming or the changing of the Earth's climate. So if you analyze it from that perspective, my attitude would be you need environmental protections in all places to ensure that you are not contributing to an increase in greenhouse gases.

I think it is hard to answer that absolutely. I do believe that all of the work that we can do, that we do with other agencies to, if you will, upgrade upward harmonization of environmental standards globally are of a benefit to all of us. I think we need, my sense, when you look at our oil supply, we need a mix of domestic and foreign. My sense is that there is a lot more we can do from a domestic perspective in terms of energy efficiency, in terms of renewables. We have got a bill up here in terms of renewables in the gasoline which would help our farmers, which would help our cities who pick up all those yard clippings, they can turn it into biomass and it can become part of a renewable fuels programs. So I think it is a combination of activities.

If I might just return to the specific permit that you brought up. Start to finish, it was 13 months from the time the final application was submitted. A couple of points to note. First of all, twice the company changed their application. They themselves changed what they were looking for. And that does result, obviously, in additional review. They made the changes. We were not even involved at that point, the State was. EPA very quickly looked at what the State had done and concurred. An appeal was filed. California does not handle those so it came to us. Our entire time for the appeal through our Environmental Appeals Board was 11 weeks. I am happy to give you the dates that things were received.

But I would like to point out something. In the appeals board, we appear as a party. We do not appear as the party filing the appeal. In this case, we appeared in support of the company against the party filing the appeal. I think these are important facts that have not been stated, as far as I can see from yesterday's record. It was simply the EPA stood in the way. We did not stand in the way. We came in on the side of the company. We think these facilities are good facilities. We have been supportive of them. And I hardly think a 13 month permitting process, where the company themselves made adjustments, is an unreasonable permitting process.

Now, I cannot speak to what local government requirements may be. I cannot speak to what PSC requirements, or whatever you call your State regulatory—what is it, a PSC out there?

Mr. OSE. That is Mr. Waxman's PUC, not mine. [Laughter.]

Ms. BROWNER. I cannot speak to any of that. But I can speak to what we do. And I would like the record to reflect that in the case of the Clean Air Act requirements it was a 13 month process. I can name a lot of facilities in your State. We have another one that was a 14 month process, we have one that was a 16 month, we have another one that was a 14 month. This one was 13 months.

I would also like to point out there are not many appeals to the Environmental Appeals Board. Right now, I think we have three pending for electric turbines. One was resolved I think in 10 days, one was resolved in 3½ months, and one is about to be resolved. People do have rights. They should be able to raise questions if they believe a mistake was made. We move expeditiously. And where we have an opinion, we come in on the side of the company.

Mr. OSE. My question was is it possible to correlate the appeal period under EPA with the appeal period under SEQUA?

Ms. BROWNER. If the State would take over the appeals process—it is their appeals process. They could incorporate whatever the Federal appeals process would require I would think, they could put it into theirs. They have chosen not to. I do not know why California made that decision, but that is the decision they made. And we would be happy to talk to them about it.

Mr. BURTON. Excuse me. Let me just say the gentleman's time has expired. If we have more questions, any of us, for Ms. Browner or Mr. Hoecker, all we have to do is write them and we will ask them to respond for the record, and I am sure they will respond.

And as I said, Ms. Browner, if you have further things you would like to clarify, we will be happy to listen.

Ms. BROWNER. I would. I would like to spend a moment clarifying one other point. You have been most kind to allow me the time.

You put up some bottles earlier with some dyes in them and suggested this was silly requirements on the part of IRS, I don't know, somebody, probably us. Let me explain why these dye requirements exist.

These are not interchangeable fuels. One of these fuels has only 500 parts per million sulfur. The other is in excess of 300,000, maybe higher. America's truckers do not want that 300,000 parts per million sulfur fuel, home heating, off road fuel in their trucks. That is what the dye is for. It is also for the IRS to make sure they are collecting the right tax. And I know we all agree that collecting the right tax is not over-charging, not under-charging. But surely we also agree in protecting the trucker and the public's health. That is what the dyes are for, so that when someone is moving the product around they know are they dealing with a high sulfur content or a low sulfur content.

Now I also understand that there were some complaints about this means that you have to drain a tank. Obviously, people have residuals in their tanks when they bring in a new fuel. Surely, that is not the problem. Mr. Chairman, with all due respect, I cannot for the life of me understand why anyone who is involved in this business would think that dyeing two radically different fuels, they

are not slightly different, they are radically different fuels, is a problem. Thank you.

Mr. BURTON. Thank you, Ms. Browner, Mr. Hoecker. We really appreciate it. You have been very helpful and I appreciate your being kind with your time.

Ms. BROWNER. Thank you.

Mr. BURTON. We stand adjourned.

[Whereupon, at 4:15 p.m., the committee was adjourned, to reconvene at the call of the Chair.]

[Additional information submitted for the hearing record follows:]

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC 20426

OFFICE OF THE CHAIRMAN

October 18, 2000

The Honorable Dan Burton
Chairman
Committee on Government Reform
U. S. House of Representatives
Washington, DC 20515

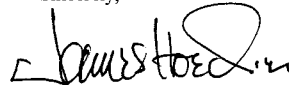
Dear Mr. Chairman:

After the September 21, 2000 hearing regarding energy issues before the Committee on Government Reform, you asked me whether there were opportunities to use tax laws to reduce the volatility of "boom and bust" cycles in oil and natural gas production. You suggested there may be a way to provide incentives for producers, especially small producers, to stay active when prices were exceptionally low, as well as potential opportunities to constrain high prices at the other extreme. To gauge industry reaction, I posed the question to the Chairman of the Independent Petroleum Association of America (IPAA), Jerry D. Jordan, and to the President of the Natural Gas Supply Association (NGSA), R. Skip Horvath. I received written responses from both parties.

Mr. Jordan explains generally that absent a legislative proposal and the specific provisions of such legislation, IPAA is not in a position to either support or oppose such legislation. Rather, IPAA believes that reliance on market forces is a better approach to ensure that there is an adequate energy supply to meet growing demand. However, Mr. Jordan states that IPAA would look favorably at legislation establishing investment tax credits to stimulate new production efforts. Mr. Horvath states that it is NGSA's opinion that legislation which supports the use of the tax code to stimulate production would interfere with the marketplace and send "misleading market signals." NGSA further states that with the introduction of market distortions, such distortions could be construed as doing a disservice to consumers.

I have enclosed copies of the two responses for your review. If I can be of further assistance, please do not hesitate to let me know.

Sincerely,



James J. Hoecker
Chairman

Enclosures



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FEDERAL ENERGY
REGULATORY COMMISSION
October 4, 2000

Jerry D. Jordan
Chairman

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Honorable James J. Hoecker
Chairman
Federal Energy Regulatory Commission
888 First Street, N.E.
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Dear Chairman Hoecker:

In follow-up to questions posed to you by Congressman Burton at a hearing conducted by the House Committee on Government Reform, you asked whether the Independent Petroleum Association of America (IPAA) supports use of the tax code to stimulate domestic production. You further asked whether IPAA would support tax disincentives when prices are relatively high.

At the outset we would note that these are general policy questions and that IPAA's support or opposition to any such legislative proposal would depend on the specific provisions of the legislation. Furthermore, IPAA's position would be determined only after review and analysis by the appropriate committees within IPAA. However, in an effort to provide some general guidance on the questions posed we would offer the following observations. IPAA believes that market forces are the best mechanism to assure that energy supplies are adequate to meet demand. We have learned through experience that price controls and government interference with the dynamics of competitive commodity markets does more harm than good. However, oil and gas exploration and production is a high risk business with significant capital requirements. Given that producer stock returns have averaged roughly 5 percent over the past 5 years, the industry has not been able to attract the necessary outside capital. Drilling budgets have been financed predominantly from internally generated cashflow.

The tax code is a useful policy mechanism to stimulate the formation of capital in capital intensive industries. With regard to oil and natural gas development, the tax code has had an even larger role. Early on, after the creation of the federal income tax, the treatment of costs associated with the exploration and development of this critical national resource helped attract capital and retain it in this inherently capital intensive and risky business. Similarly, the use of the 27.5 percent depletion rate is another example of a policy decision that resulted in the extensive development of petroleum resources in the United States.

But, the converse is equally true. By 1969, the depletion rate was reduced and later eliminated for all producers except independents. However, even for

independents, the rate was dropped to 15 percent and allowed for only the first 1000 barrels per day of petroleum produced. A higher rate is allowed for marginal wells which increases as the petroleum price drops, but even this is constrained – in the underlying code – by net income limitations and net taxable income limits. In the Windfall Profits Tax, federal tax policy extracted some \$44 billion from the industry that could have otherwise been invested in more production. Then, in 1986 as the industry was trying to recover from the last long petroleum price drop before the 1998-99 crisis, federal tax policy was changed to create the Alternative Minimum Tax that sucked millions more dollars from the exploration and production of petroleum and natural gas. These changes have discouraged capital from flowing toward this industry. And, without capital the ultimate result is lower production. Since 1986, domestic petroleum production has dropped by over 2.5 million barrels per day.

IPAA has supported the use of tax credits to encourage production of specific types of reserves, such as those from non-conventional sources and marginal wells. Section 29 tax credits have promoted the production of non-conventional supply since its enactment. The section 29 credit has been extremely successful and has led to a more diverse and secure supply of natural gas. IPAA applauds your efforts at FERC in Docket No. RM00-6 to re-establish a well determination procedure and make certain that these credits are available to all qualifying wells.

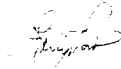
IPAA has also supported legislation calling for countercyclical tax credits for marginal production – a concept proposed by the National Petroleum Council in its 1994 *Marginal Wells* study. The Marginal Well Production Tax Credit would establish a tax credit for existing marginal wells. Marginal gas wells are those producing not more than 90 Mcf a day. The credit would allow a \$0.50 per Mcf tax credit for the first 18 Mcf of daily natural gas production from a marginal well. Comparable provisions would apply to oil. These credits are phased in as the price for natural gas falls below \$1.89/Mcf and would be fully applied when the price reaches \$1.56/Mcf. They are phased out as the price increases. The hundreds of thousands of marginal wells located throughout the United States collectively make a substantial contribution to our energy supply. However, due to the fragile economics of these reserves they can be permanently lost when commodity prices fall precipitously, as was the case for oil during 1998 and much of 1999. A tax credit can help these reserves remain viable even during a period of low product prices – providing a safety net for this critical production.

In regard to the use of tax disincentives, which are applied when prices exceed a given level, IPAA would oppose any such measure. From a policy perspective it makes no sense to take capital away from producers at a time when the market is signaling a need for additional supply. It smacks of the rationale behind the Windfall Profits Tax.

Instead, IPAA is evaluating proposals that would encourage the development of additional natural gas supply through other approaches. For example, legislation was introduced in this Congress to create an investment tax credit targeted toward new production efforts. Such an approach might be triggered by some factor related to national supply or reserve projections based on future demand. It might be suspended when the trigger is met and reinstated if development fails to continue. This type of approach would be more appropriate to encourage adequate supplies and thereby reduce the likelihood of excessive prices.

We hope that these observations are helpful to you in formulating a response to Congressman Burton. Given that independents produce about two-thirds of our domestic natural gas supplies, these issues are of paramount importance to IPAA and the nation. To the extent that these issues are considered further by FERC or Congress, IPAA would be pleased to offer additional assistance. In the meantime, please call if you have any questions or concerns with regard to these issues.

Sincerely,



Jerry D. Jordan
Chairman



October 13, 2000

The Honorable James J. Hoecker
Chairman
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426


Dear Jim:

This letter is a follow-up to your inquiry regarding the idea of tax incentives mentioned to you by Rep. Dan Burton, Chairman of the House Government Reform Committee. The view within my membership is quite strong: legislation that has a tax consequence based on a natural gas price trigger would interfere with the marketplace and send misleading market signals. Providing tax relief when gas prices are "too low" is tantamount to encouraging production when the market does not want it. Conversely, providing tax consequences when gas prices are "too high" would discourage production just when the market is demanding more. This kind of unintended consequence is unavoidable when one intervenes in a competitive market.

I understand the appeal of examining such ideas in the current price environment, especially when they are designed to be symmetrical. I also appreciate the political pressure on policymakers to just "do something." But any interference with a highly competitive marketplace, by definition, disrupts the signals companies need to allocate their resources to satisfy the marketplace. We would do consumers a disservice by introducing market distortions, and threaten to undo the many years of good work you and your predecessors have done to establish a reliable natural gas industry.

As always, I am happy to discuss this further with you at your convenience.

Sincerely,


R. Skip Horvath

Representing the Nation's Producers of Natural Gas

805 15th Street, NW • Suite 510 • Washington, DC 20005 • (202) 326-9300 • Fax (202) 326-9330

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC 20426

OFFICE OF THE CHAIRMAN

October 18, 2000

The Honorable Dan Burton
Chairman
Committee on Government Reform
U.S. House of Representatives
Washington, DC 20515

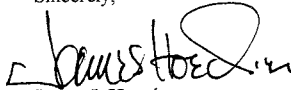
Dear Mr. Chairman:

After the September 21, 2000 hearing regarding energy issues before the Committee on Government Reform, you asked me whether there were opportunities to use tax laws to reduce the volatility of "boom and bust" cycles in oil and natural gas production. You suggested there may be a way to provide incentives for producers, especially small producers, to stay active when prices were exceptionally low, as well as potential opportunities to constrain high prices at the other extreme. To gauge industry reaction, I posed the question to the Chairman of the Independent Petroleum Association of America (IPAA), Jerry D. Jordan, and to the President of the Natural Gas Supply Association (NGSA), R. Skip Horvath. I received written responses from both parties.

Mr. Jordan explains generally that absent a legislative proposal and the specific provisions of such legislation, IPAA is not in a position to either support or oppose such legislation. Rather, IPAA believes that reliance on market forces is a better approach to ensure that there is an adequate energy supply to meet growing demand. However, Mr. Jordan states that IPAA would look favorably at legislation establishing investment tax credits to stimulate new production efforts. Mr. Horvath states that it is NGSA's opinion that legislation which supports the use of the tax code to stimulate production would interfere with the marketplace and send "misleading market signals." NGSA further states that with the introduction of market distortions, such distortions could be construed as doing a disservice to consumers.

I have enclosed copies of the two responses for your review. If I can be of further assistance, please do not hesitate to let me know.

Sincerely,



James J. Hoecker
Chairman

Enclosures

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC 20426

November 2, 2000

OFFICE OF THE CHAIRMAN

The Honorable Dennis J. Kucinich
U.S. House of Representatives
Washington, D.C. 20515

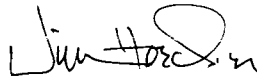
Dear Congressman Kucinich:

During the hearing held on September 21, 2000, by the Committee on Government Reform on the subject of "The Potential Energy Crisis in the Winter of 2000," you requested a review of the current rates for interstate transportation of natural gas.

For your benefit, I have attached a staff analysis that evaluates recent prices for transportation of natural gas to the Cleveland area, which may be of particular interest to you. As you will note, although natural gas transportation costs to Cleveland increased somewhat over this past year, they remain a small portion of the delivered price of natural gas, and indeed have declined as a percentage of the overall price of natural gas. The analysis cites specific scenarios to better explain our findings.

If you have further questions or need additional information, please do not hesitate to let me know.

Sincerely,



James J. Hoecker
Chairman

Enclosure

cc: The Honorable Dan Burton
The Honorable Henry A. Waxman

**FERC Staff Analysis of Interstate Transportation Prices
to the Cleveland Market**

At the September 21, 2000 hearing of the Committee on Government Reform, Representative Kucinich asked Chairman Hoecker about federally regulated natural gas transportation prices to Cleveland, Ohio. The following is an analysis of transportation prices to Cleveland, Ohio comparing this year's transportation costs to last year's transportation costs.

Background

The final bill which is received by a typical residential natural gas consumer reflects three basic cost components: the cost of the natural gas commodity itself, the cost of the interstate transportation of the natural gas, and the cost of the local distribution for that natural gas. The first part, natural gas at the wellhead, has been completely deregulated by Congress. The second part, interstate transmission of natural gas, is regulated by the FERC. The third part, distribution of natural gas behind the citygate, is regulated by state and local authorities.

When FERC sets the just and reasonable rate for the interstate transmission of natural gas, the maximum rate that can be charged by a pipeline is set by the Commission based upon the pipeline's actual costs of providing that transportation plus a return on the pipeline's investment. Pipelines are permitted to offer discounts – i.e., rates below this maximum rate – and rates on many interstate pipelines are discounted for the majority of days of the year. Non-pipeline capacity holders may also provide interstate transportation of natural gas. These capacity holders, which are granted blanket certificates by the FERC to provide interstate transmission service, are bound by the maximum rate for any transmission service of more than a year, and, like pipelines, also have the ability to discount transmission service.

Because of the ability of pipeline and other capacity holders to discount the FERC approved maximum rate, and the ability of non-pipeline capacity holders to rebundle the natural gas commodity with interstate transmission, and, in some cases, with both interstate transmission and local distribution, the FERC mandated maximum rate, in and of itself, tells one little about the actual price paid for transportation of natural gas.

Analysis of interstate transportation prices to Cleveland, Ohio

To undertake this analysis, FERC staff used two possible transportation paths to the East Ohio citygate, which is the main receipt point of natural gas for Cleveland, Ohio. These two transportation path scenarios, reflected in the attached chart, are explained below. As a starting point, because the FERC approved maximum transmission rate is typically not the actual price paid in the marketplace, knowing this rate is not very useful in an analysis of actual prices paid for interstate transportation. Nevertheless, as a point of reference, the firm transmission rate for Scenario 1, ANR pipeline, consists of a monthly \$4.25 per dekatherm per day reservation charge, plus a \$0.0075 per dekatherm commodity charge (the reservation charge “reserves” pipeline capacity, while the commodity charge is billed when the capacity is actually used). The interruptible transmission rate is \$0.1502 per dekatherm. This rate is the same for both 1999 and 2000.

The FERC mandated transmission rate for Scenario 2, Dominion Transmission, consists of a monthly \$5.48 per dekatherm per day reservation charge, and a \$0.0297 per dekatherm commodity charge for 1999. The interruptible rate was \$0.1802 per dekatherm. Effective May 1, 2000, the commodity rate decreased to \$0.0164, while the interruptible rate increased to \$0.1810 per dekatherm. As explained above, these FERC mandated transmission rates are based on the respective pipelines’ actual costs of providing transmission services, and do not necessarily reflect the market value of transmission services. (One dekatherm equals one MMBtu.)

To address the question of what portion of actual delivered natural gas prices are accounted for by interstate transportation costs to the city of Cleveland, Ohio, FERC staff compared the daily and monthly contract market prices published by Gas Daily for October 1999 and October 2000. Both the daily and monthly price data are reported as a “delivered price” consisting of both commodity and interstate transmission components. As shown on the accompanying chart, from 1999 to 2000, the portion of the delivered gas price for supplies flowing to Cleveland attributable to interstate transportation is small. For Scenario 1, roughly 14 cents out of a delivered price of \$2.49 for 1999, and roughly 27 cents out of a delivered price of \$5.37 for 2000 in the daily market, and roughly 13 cents out of a delivered price of \$2.68 for 1999 and roughly 29 cents out of a delivered price of \$5.57 in the monthly market is attributable to interstate transportation. For Scenario 2, roughly 8 cents out of a delivered price of \$2.65 for 1999 and roughly 16 cents out of a delivered price of \$5.42 for 2000 is attributable to interstate transportation in the daily market, and roughly 7 cents out of a delivered price of \$2.78 in 1999 and roughly 45 cents out of a delivered price of \$5.68 in 2000 in the monthly market.

Scenario 1 starts with the midpoint of the daily prices (Oct. 4, 1999, and Oct. 2, 2000) paid for a typical volume of 5,000 MMBtu at the Henry Hub. We then compared that price with the midpoint price paid in Chicago. The difference in the market prices is essentially the cost of transportation. The chart shows the transportation differential between the two markets and the percentage of cost allocable to transportation. Next, we used the ANR Mainline #7 delivered price to East Ohio Gas Company, now Dominion East Ohio, the principal gas distributor in Cleveland. We computed the transportation differential and percentage, and derived a total of 14 cents for spot gas transportation on October 4, 1999 and a slightly lower cost of 13 cents for monthly contract transportation in October 1999. Similarly, for October 2, 2000, the daily spot gas transportation component rose to 27 cents with the monthly contract component computing slightly higher at 29 cents. This price increase reflects a decline in the discounts below the tariff-specified rate offered by these pipelines. The tariff rate has not changed over the past year. Any such changes would require FERC approval. Comparing delivered gas market prices for October 1999 and October 2000, the federally regulated transportation component decreased from 2.81% to 1.86% for spot gas and from 2.61% to 2.15% for monthly contracts.

Scenario 2 starts with Dominion Transmission's (DTI), formerly CNG, delivered gas market price for Appalachia North Point. In this scenario, however, Staff did not have available an East Ohio Gas Company citygate market price to facilitate this analysis. First, Staff estimated the mileage east to Washington, D.C. from central West Virginia, where Appalachian North Point is located, then estimated the mileage west to Cleveland, Ohio from the same point. The distance to Cleveland is about half the distance to Washington, D.C. Next we used DTI's market price for Mid-Atlantic citygates, computed the transportation component, divided it by .5 to estimate a transportation component for deliveries to East Ohio Gas Company. Again, for October 1999 and October 2000 gas deliveries to Cleveland via DTI, the transportation component decreased from 2.92% to 2.86% for spot gas and from 2.52% to 0.79% for monthly contracts.

Conclusion

Even though transportation costs increased over the past year, they declined as a percentage of delivered gas prices. Because pipelines use natural gas to run compressors to provide transportation, the increase in transportation costs is likely related to the increase in wellhead prices of natural gas. Despite the recent rise in wellhead prices over the last year, interstate transportation prices have remained at less than 6% of the total delivered gas price. Changes in the FERC approved maximum transmission rate would

have very little, if any, impact on the ultimate price of natural gas paid by residential and small commercial customers because of the prevalence of discounting.

Analysis of the Transportation Costs from Henry Hub and Appalachia to East Ohio Gas - Comparison of Prices in October 1999 to October 2000

Scenario 1: via Chicago Hub and ANR based on market prices *

Path:	Daily Price Survey **			Monthly Contract Index ***		
	October 4, 1999			October 2, 2000		
	Delivered Price (in \$/MMBtu)	Differential (in \$/MMBtu)	Transportation as a % of Price	Delivered Price (in \$/MMBtu)	Differential (in \$/MMBtu)	Transportation as a % of Price
Henry Hub to Chicago (city gate)	2.35	0.07	2.9%	5.105	0.17	3.2%
Chicago to East Ohio	2.42			5.275		
Gas serving Cleveland	2.49	0.07	2.8%	5.375	0.10	1.9%
Total Differential		0.14	5.6%		0.27	5.0%

[Note: From 1999 to the present, ANR's maximum base tariff rates remained static.]

Scenario 2: via Dominion Transmission - North Pt. (Appalachia) estimate based on transportation rates imputed from Mid-Atlantic city-gate market prices

Path:	Daily Price Survey **			Monthly Contract Index ***		
	October 4, 1999			October 2, 2000		
	Delivered Price (in \$/MMBtu)	Differential (in \$/MMBtu)	% of Price	Delivered Price (in \$/MMBtu)	Differential (in \$/MMBtu)	% of Price
Appalachia thru DTT to East Ohio	2.575			5.265		
Gas serving Cleveland	2.6525	0.08	2.9%	5.42	0.16	2.9%
Total Differential		0.08			0.16	

[Note: From 1999 to the present, CNG's base tariff rates for firm transportation service increased \$0.0077 and its commodity rate increased \$0.0165 as a result of increases in certain surcharges (i.e., TCRA, Account No. 858 costs, and GRI) and its RP99-519 settlement requiring the conversion of 25% of GSS entitlements to GSSFT service.]

* Market prices as published in "Gas Daily."

** Price reflects midpoint of the daily range for the most common prices paid in \$/MMBtu of a typical volume of 5 thousand MMBtu.

*** Monthly prices are WACOG based on volumes and prices for spot deals done within five working days prior to pipeline nomination deadlines.

MID C DAILY PEAK PRICES APRIL - SEPTEME

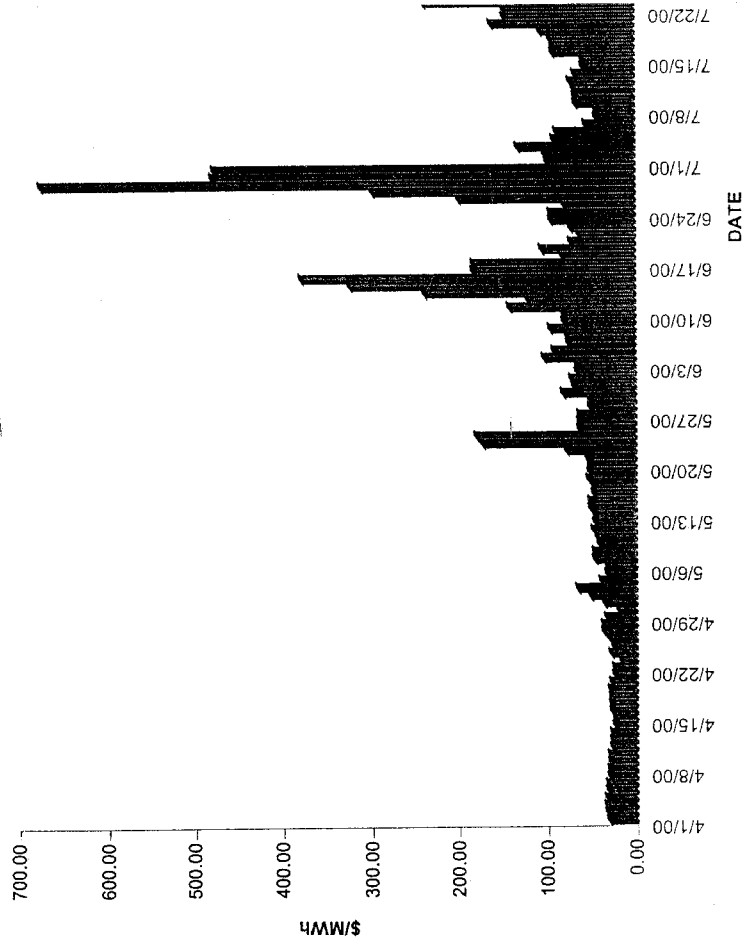


ABB plans three-unit, 1,500-MW complex in Illinois

An ABB Group subsidiary, ABB Energy Ventures, was granted a construction permit last week by the Illinois Environmental Protection Agency to build the first phase of its 1,500-MW Grand Prairie plant.

The facility will be developed in three phases, ABB Director of Project Development Philip

Moor said. The first of the three phases will consist of a natural gas-fired, simple-cycle generator producing 500 MW. The second phase will generate 750 MW, with another 500-MW simple-cycle generator and a 250-MW gas-fired peaker. The third addition to the plant will be a 250-MW, gas-fired simple-cycle generator.

"It's a merchant facility," Moor said, adding that the company will not be selling into the retail marketplace.

The construction permit was issued in early September, however the company is now waiting on a local zoning permit to begin construction, Moor said. MCM

Ranges and Indexes of Trades for Standard 16-Hour Daily Products

Delivery Date: 09/16/00

Delivery Point	Common Low	Common High	Weighted Average PEAK HOURS, 0600 TO 2200	Absolute Low	Absolute High	Common Low	Common High	Weighted Average OFF-PEAK HOURS, 2200 TO 0600	Absolute Low	Absolute High
West	\$166.75	\$172.25	\$169.40	\$165.00	\$176.00	\$103.75	\$108.75	\$106.22	\$100.00	\$110.00
COB	---	---	---	---	---	---	---	---	---	---
Four-C	---	---	---	---	---	---	---	---	---	---
Mead, Nev.	---	---	---	---	---	---	---	---	---	---
Md-C	\$181.25	\$171.25	\$186.35	\$180.00	\$190.00	\$80.00	\$80.00	\$80.00	\$80.00	\$80.00
NP15	\$156.25	\$159.75	\$158.00	\$154.00	\$161.00	\$88.00	\$102.00	\$100.00	\$97.00	\$105.00
Palo Verde	\$184.75	\$189.00	\$186.87	\$182.50	\$191.00	\$105.00	\$105.25	\$105.08	\$105.00	\$106.00
SP15	\$173.00	\$180.25	\$176.54	\$170.00	\$185.00	\$80.00	\$80.00	\$80.00	\$80.00	\$80.00
Central	---	---	---	---	---	---	---	---	---	---
ERCOT, econ. B	---	---	---	---	---	---	---	---	---	---
Ameren	\$19.00	\$21.00	\$20.00	\$18.00	\$22.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00
Clas/IP	---	---	---	---	---	\$13.25	\$13.25	\$13.25	\$13.25	\$13.25
Com Ed Border	---	---	---	---	---	---	---	---	---	---
MAIN north	---	---	---	---	---	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00
MAPP	\$17.50	\$20.25	\$18.81	\$16.00	\$21.50	\$17.00	\$17.00	\$17.00	\$17.00	\$17.00
Entergy, into	---	---	---	---	---	---	---	---	---	---
SPP	\$21.00	\$25.50	\$23.30	\$21.00	\$30.00	\$12.00	\$14.00	\$12.96	\$11.00	\$15.00
East	---	---	---	---	---	---	---	---	---	---
Entergy, into	---	---	---	---	---	---	---	---	---	---
North EGAR	\$12.25	\$21.25	\$16.78	\$12.00	\$30.00	\$10.25	\$12.00	\$11.08	\$10.00	\$13.50
PJM-West	\$19.50	\$20.25	\$19.89	\$19.50	\$21.00	---	---	---	---	---
NEPOOL	\$49.50	\$49.50	\$49.50	\$49.50	\$49.50	---	---	---	---	---
NY Zone G	---	---	---	---	---	---	---	---	---	---
NY Zone A	---	---	---	---	---	---	---	---	---	---
Southern	\$26.50	\$27.50	\$27.00	\$26.00	\$28.00	---	---	---	---	---
TVA, into	---	---	---	---	---	---	---	---	---	---
TVA, out of	---	---	---	---	---	---	---	---	---	---
Fla.-Ga.	---	---	---	---	---	---	---	---	---	---
Fla. in-state	\$28.00	\$28.00	\$28.00	\$28.00	\$28.00	---	---	---	---	---

Delivery Date: 09/17/00

Delivery Point	Common Low	Common High	Wtd. Av. Index PEAK HOURS, 0600 TO 2200	Absolute Low	Absolute High	Common Low	Common High	Wtd. Av. Index OFF-PEAK HOURS, 2200 TO 0600	Absolute Low	Absolute High
West	---	---	---	---	---	---	---	---	---	---
COB	---	---	---	---	---	---	---	---	---	---
Four-C	---	---	---	---	---	---	---	---	---	---
Mead, Nev.	---	---	---	---	---	---	---	---	---	---
Md-C	---	---	---	---	---	---	---	---	---	---
NP15	---	---	---	---	---	---	---	---	---	---
Palo Verde	---	---	---	---	---	---	---	---	---	---
SP15	---	---	---	---	---	---	---	---	---	---
Central	---	---	---	---	---	---	---	---	---	---
ERCOT, econ. B	---	---	---	---	---	---	---	---	---	---
Ameren	---	---	---	---	---	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00
Clas/IP	---	---	---	---	---	---	---	---	---	---
Com Ed Border	---	---	---	---	---	---	---	---	---	---
MAIN north	---	---	---	---	---	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00
MAPP	\$16.00	\$20.25	\$18.07	\$16.00	\$25.00	\$17.00	\$17.00	\$17.00	\$17.00	\$17.00
Entergy, into	---	---	---	---	---	---	---	---	---	---
SPP	\$20.00	\$25.00	\$22.55	\$20.00	\$30.00	\$12.00	\$13.25	\$12.63	\$11.00	\$13.50
East	---	---	---	---	---	---	---	---	---	---
Entergy, into	---	---	---	---	---	---	---	---	---	---
North EGAR	\$12.25	\$20.75	\$16.28	\$12.00	\$30.00	\$10.25	\$12.00	\$11.12	\$10.00	\$13.50
PJM-West	\$19.50	\$20.25	\$19.89	\$19.50	\$21.00	---	---	---	---	---
NEPOOL	\$49.50	\$49.50	\$49.50	\$49.50	\$49.50	---	---	---	---	---
NY Zone G	---	---	---	---	---	---	---	---	---	---
NY Zone A	---	---	---	---	---	---	---	---	---	---
Southern	\$26.50	\$27.50	\$27.00	\$26.00	\$28.00	---	---	---	---	---
TVA, into	---	---	---	---	---	---	---	---	---	---
TVA, out of	---	---	---	---	---	---	---	---	---	---
Fla.-Ga.	---	---	---	---	---	---	---	---	---	---
Fla. in-state	\$28.00	\$28.00	\$28.00	\$28.00	\$28.00	---	---	---	---	---

Exhibit 1

9/15/00 4:02 PM

Earlier this month, the San Diego Unified School District, the Santee City Council and the San Diego County Board of Supervisors all voted to pay only as much of their power bills as they paid this time last year.

Meanwhile, San Diego city officials already are at work negotiating changes to their existing SDG&E franchise agreement, amendments that could reap millions of extra dollars for the city.

On a day that topped out at 90 degrees in El Cajon, again forcing thousands of residents to flip on air conditioning or swelter indoors, more than 100 people showed up yesterday to rally against utility bills.

"What we need are the politicians to quit being politicians and regulate the (power) industry like they are supposed to," said John Wiederkehr, co-owner of Certified Metal Craft in El Cajon, whose company's electric bill tripled to more than \$90,000 this past month.

Speakers addressed the crowd while standing in front of a red and white banner that read, "Voltage Revolt." A cardboard sign held above the crowd carried the message, "Time For Another Revolution."

Business owner George Coles, of Coles Carpets, said politicians weren't doing enough to provide relief to local merchants.

"You either shut out the lights or shut your doors," he said. "They have not come up with a better solution."

Late Tuesday, when the Chula Vista City Council was scheduled to consider an application by PG&E Dispersed Generating Co. to build a new 50-megawatt power plant at the city's southern border, Rep. Bob Filner, D-San Diego, urged a delay.

Rather than approve a new private-sector generator, Filner suggested that the city consider operating its own utility district so Chula Vista residents would be less vulnerable to rising energy costs.

"We want to get beyond savings to energy self-sufficiency and energy self-control," Filner told the council.

The recommendation caught PG&E executives by surprise. They promptly requested and received a continuance on their application, which is now to go before the council next month.

Even would-be politicians are using the summer-long run-up in electricity rates to grab attention from voters.

San Diego City Council candidate Brian Maienschein called on Mayor Susan Golding yesterday to convene public hearings on what the city should try to get during its current franchise agreement negotiations with SDG&E.

Under the existing deal, SDG&E pays 3 percent of its gross revenues to the city for use of public roads. Last year, San Diego received some \$28 million from the utility.

The agreement is under review as part of a six-month "reopener" period that ends in December.

"We can't afford another backroom deal on this franchise, with the results presented to the public at the last minute, after decisions have already been made," said Maienschein, who is running for the District 5 seat.

Mayoral spokesman Ric Grenell said the public would have "ample opportunity" to weigh in on negotiations before any agreement is reached.

LANGUAGE: ENGLISH

LOAD-DATE: August 28, 2000

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June 15, 2000, Thursday, Home Edition

SECTION: Business; Part C; Page 1; Financial Desk

LENGTH: 734 words

HEADLINE: BAY AREA HEAT WAVE STRAINS POWER GRID; ENERGY: ROLLING BLACKOUTS, AFFECTING TENS OF THOUSANDS, UNDERSCORE STATE'S PRECARIOUS **ELECTRICITY** SITUATION THIS SUMMER.

BYLINE: NANCY RIVERA BROOKS and CHARLES PILLER, TIMES STAFF WRITERS

BODY:

Tens of thousands of consumers and businesses in the San Francisco Bay Area endured rolling **electricity** blackouts Wednesday because the area's **electricity** grid was unable to handle soaring demand brought about by record 100-plus weather.

High temperatures sent **electricity** use spiking across California, leading state power officials to declare a Stage 1 power emergency, which means that power reserves fell below 7%. In a Stage 1 emergency, consumers are asked to voluntarily reduce **electricity** consumption as much as possible.

But the San Francisco area suffered unusual difficulties caused by mechanical problems in at least two Bay Area power plants at a time when temperatures were reaching highs not seen in decades. San Francisco sweltered at 103 and **San Jose** hit 109 Wednesday afternoon.

The Bay Area's power problems underscore California's precarious **electricity** situation this summer.

Energy officials have warned that although the state has sufficient generating

capacity to keep lights burning and air conditioners humming if this is a normal summer, there could be energy shortages and rolling blackouts if it's a hot summer like the one in 1998. That's because recent growth in the state's population and economy have caused **electricity** demand to increase about 2% a year, but new power-generating facilities will not come on line until 2001.

The California Independent System Operator, the nonprofit agency that manages most of the **electricity** flow around the state, is urging conservation and has identified businesses that are willing to conserve power for a price.

Each of the big investor-owned utilities has its own program under which large industrial and commercial customers can get reduced rates in exchange for agreeing to have their power interrupted during a Stage 2 emergency, when reserves fall below 5%. A Stage 3 emergency, which has never been declared on a statewide basis in California, means reserves have fallen below 1.5% and involuntary power interruptions may begin.

Pacific Gas & Electric Co. began cutting power to blocks of customers at 1:22 p.m. Wednesday in areas as far south as **San Jose** and as far east as Antioch.

Each block of 35,000 customers was in the dark for between 60 minutes and 90 minutes, then the blackout was shifted to another block of customers, said Tom Collins, spokesman for the San Francisco-based utility. Collins said about 97,000 customers were affected by the blackout, which ended about 4:30 p.m. as demand began to taper off.

The San Francisco utility took the action on orders from the California Independent System Operator, or Cal-ISO, which was created to run the state's long-distance **electricity** transmission system as part of the 1998 deregulation of the California **electricity** industry.

"In the Bay Area, we have been having problems all day with voltage," said Patrick Dorinson, a spokesman for Cal-ISO. "This was a decision to protect the integrity of the system."

Jon Tremayne, a spokesman for Pacific Gas & Electric, said the blocks of affected customers, representing about 100 megawatts of usage, were scattered throughout the Bay Area, so that each city in the region had some affected customers. However, he could not say whether any major businesses experienced outages.

Communities around the Bay Area were cautioned to voluntarily reduce their power consumption, but officials in Fremont, on the southeastern edge of the bay, and in **San Jose** said they had not heard of any power outages in their areas.

Technology companies in Silicon Valley, including Sun Microsystems, Yahoo, Cisco Systems, Excite@Home and Xerox, said they were all a bit warm, with their air conditioning adjusted to comply with the suggested guidelines. But none reported service or production interruptions.


"In Palo Alto, we've been asked by the city government to power down or be conservative with our use of power," said Emily Fox, a spokeswoman for

Hewlett-Packard. "In Cupertino, our site is really reducing power to the point of turning off a lot more lights and turning off systems that are not essential."

Intel, the leading semiconductor manufacturer, was taking similar precautions. "The lights have gone down," Intel spokesman Tom Waldrop said. "But there is no impact on the factories." The company operates a research and development fabrication plant at its Santa Clara headquarters.

LANGUAGE: English

LOAD-DATE: June 15, 2000

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Exhibit 3

The Northeast Heating Fuel Market: Assessment and Options

July 2000

Office of Integrated Analysis and Forecasting
Energy Information Administration
U.S. Department of Energy
Washington, DC 20585

Office of Policy
U.S. Department of Energy
Washington, DC 20585

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Executive Summary

In January 2000, prices for heating oil, the oil consumers use to heat their homes, increased dramatically in the Northeastern United States. As a result, many consumers were faced with unexpectedly high heating bills as the weather turned colder. The level and duration of the price increase prompted the President to ask Secretary of Energy Bill Richardson to examine opportunities for converting factories and major users from oil to other fuels, which will help to free up future oil supplies for use in heating homes.

In response to the President's request, this study examines how the distillate fuel oil market (and related energy markets) in the Northeast behaved in the winter of 1999-2000, explains the role played by residential, commercial, industrial, and electricity generation sector consumers in distillate fuel oil markets and describes how that role is influenced by the structure of the energy markets in the Northeast. In addition, this report explores the potential for nonresidential users to move away from distillate fuel oil and how this might impact future prices, and discusses conversion of distillate fuel oil users to other fuels over the next 5 years. Because the President's and Secretary's request focused on converting factories and other large-volume users of mostly high-sulfur distillate fuel oil to other fuels,¹ transportation sector use of low-sulfur distillate fuel oil is not examined here.

Fuel switching and conversion from distillate fuel oil to a different fuel can occur in either of two ways, depending on the time frame available. In the short term, existing equipment that has dual-fuel (e.g., distillate and natural gas) switching capability can be used. In the longer term, other equipment may be amenable to retrofits or replacements.²

The Distillate Fuel Oil Market in the Winter of 1999-2000

In mid-January 2000, prices for distillate fuel oil³ and natural gas rose dramatically in the Northeast. For example, between January 14 and February 4, 2000, New York Harbor spot prices for home heating oil (generally, high-sulfur Number 2 distillate fuel oil) rose from \$0.76 to \$1.77 per gallon, a 133-percent increase. Over a similar period, from January 11 to January 21, 2000, the New York spot prices for natural gas rose from \$2.65 to \$11.75 per million Btu, an increase of more than 340 percent. Retail prices for distillate fuel oil—the prices faced by consumers—rose less dramatically but still showed strong increases. For example, between January 17 and February 7, 2000, the average price of home heating oil for residential customers in New England rose from \$1.18 to \$1.96 per gallon, a 66-percent increase. For the typical household with a 275-gallon tank that was filled up at the peak price, the increase amounted to approximately \$140 for an average fill-up (two-thirds of a tank). During the same period, the New England retail price of diesel fuel (low-sulfur distillate used for transportation) rose from \$1.44 to \$2.12 per gallon, a 47-percent increase.⁴ In February, the return to warmer weather and the arrival of new distillate supplies, mainly in the form of imports, relieved the market imbalance and prices fell.

In the markets for distillate fuel oil, as in all competitive markets, the balancing of supply and demand sets prices. Any factor that leads to a significant imbalance—insufficient supply to meet demand or, vice versa, supply that exceeds demand—can cause sharp price changes. The key factors that influence prices in distillate fuel oil markets include supply and demand in

¹In New Jersey, environmental regulations limit consumption of high-sulfur distillate fuel oil by large-volume distillate users.

²Furnace tuneups, insulation, and other efficiency measures may also reduce distillate consumption; however, they are unlikely to have a significant impact and are not included in this study.

³Throughout this report, the term "home heating oil" is used to indicate Number 2 high-sulfur distillate fuel oil. There are exceptions to this definition which, for the sake of improved communication to a broader audience, are often simplified—for example, Number 1 distillate oil and low-sulfur Number 2 distillate can also be easily used for home heating if necessary and available. Price usually precludes their use for heating.

⁴Diesel fuel oil and home heating oil are both distillate fuel oils. The primary difference is that on-road diesel fuel has a lower maximum sulfur content and is subject to Federal and State motor fuels taxes. Diesel has slightly higher cost, excluding taxes, than high-sulfur distillate or home heating oil.

the world crude oil market, supply and demand in the markets for competing fuels (such as natural gas), the status of distillate fuel oil refining and delivery capacity, the level of stocks held by wholesalers and retailers, and weather-induced fluctuations in demand. The last factor, weather, is especially important in the market for home heating oil, because its chief uses are for heating homes in the Northeast and meeting the marginal fuel requirements of some industrial plants and power plants when demand is high and other fuels are not available.

Sharp movements in any combination of the factors mentioned above can cause, and historically have caused, significant swings in distillate fuel oil prices. In the winter of 1999-2000, several factors appear to have played key roles in the price increases seen in the Northeast: rapidly rising world oil prices, lower than normal inventories of distillate fuel oil, adverse weather conditions, constraints on natural gas pipeline capacity in some areas of the Northeast, and delivery and production problems for distillate fuel oil. These factors taken together led to the sharp increases in distillate fuel oil and natural gas prices seen in the Northeast in mid-January 2000.

When the colder weather hit in January, consumers increased their demand for both home heating oil and natural gas, and prices rose. Because distillate fuel oil stocks were below normal levels, quickly available supplies were limited and prices responded sharply to the increase in demand. At the same time, the demand for natural gas in the region stretched the capacity of some pipelines, and natural gas customers on interruptible contracts, mainly distillate-switchable large industrial and power plants,⁵ were asked to switch to their alternative fuel—primarily, distillate fuel oil. When customers seeking to avoid high natural gas prices and interruptible natural gas customers entered the distillate fuel oil market, the upward pressure on distillate oil prices increased still further.

Coming into the winter of 1999-2000, world oil prices rose dramatically. After several years of low prices, the price of crude oil rose from approximately \$12 per barrel⁶ in February 1999 to about \$34 per barrel in early March 2000—still much lower than the record high world oil price of \$70 per barrel (in 1999 dollars) seen in 1981. Members of the Organization of Petroleum

Exporting Countries (OPEC) and key non-OPEC countries, notably, Mexico and Norway, had reduced their production in response to the low crude oil prices in 1997 and 1998. The production decline, in combination with increased consumption in industrialized countries and Southeast Asia, led to an imbalance in world crude oil supply and demand: more was being consumed than produced. This, in turn, led to a drawdown of world crude oil inventories.

A related drawdown occurred in distillate fuel oil inventories. With crude oil prices rising faster than product prices in 1999, refiners saw their operating margins shrinking. In response, they reduced their purchases of expensive crude oil and their production of refined products, including distillate fuel oil. The production cutbacks contributed to a nationwide drawdown of distillate fuel oil inventories toward the end of 1999. Given the normal stocks and the relatively warm weather in early December, the drawdown in December was stronger than expected, particularly in the Northeast.⁷ For example, in New England stocks of high-sulfur distillate fuel oil fell by 35 percent, from 11.6 million barrels in early December to 7.5 million barrels in early January. Similarly, in the Central Atlantic,⁸ high-sulfur distillate fuel oil stocks fell by 24 percent, from 24.5 million barrels in early December to 18.6 million barrels in early February. Although heating oil inventories often decline in December, the magnitude of the stock draw was greater than expected from historic patterns.

When cold weather hit in January, low stocks could provide little supply, and prices reacted strongly. During the week of January 22, 2000, temperatures in the New England and Middle Atlantic areas shifted from being 15 to 17 percent warmer than normal, respectively, to 24 and 22 percent colder than normal. The change increased weekly heating requirements by about 40 percent. As a result, the demand for distillate fuel oil increased in all segments of the market. Residential and commercial consumers increased their use of distillate fuel oil to heat their homes and businesses, power companies increased their use to meet the demand for electricity (in some cases by switching from natural gas), and industrial customers with dual-fired facilities increased their use of distillate fuel oil by switching from natural gas, either as required by their gas supply contracts or to avoid the higher price of natural gas. The problem of unexpected rapid increases in demand for

⁵Interruptible contracts, as an industry practice, equate "quality of service with cut-off temperatures"—the lower the cutoff temperature, the higher the quality of service and the higher the transportation rate charged. When temperatures fall below specified cutoff temperatures, the gas transporter/marketer may provide notice of up to 24 hours, after which the customer is to stop consuming gas. Notice to cut off usage is not necessarily automatic.

⁶West Texas Intermediate spot oil price.

⁷The Northeast is defined as Maine, Vermont, New Hampshire, Connecticut, Rhode Island, New York, New Jersey and Pennsylvania. This conforms to Census region 1, composed of Census divisions 1 and 2 (New England and Middle Atlantic).

⁸The Central Atlantic, also known as Petroleum Administration for Defense District (PADD) 1b, consists of New York, Pennsylvania, New Jersey, Delaware, Maryland, and the District of Columbia.

distillate fuel oil was aggravated by serious delivery problems. For example, Coast Guard ice breakers worked overtime to keep the Hudson River open during the coldest weather, and high winds and rough water in Long Island Sound made it too difficult for barges to unload heating oil from a waiting tanker in New Haven, Connecticut, in early February.

The pressure put on distillate fuel oil markets by the sudden change in weather was exacerbated by relatively high natural gas prices. In some uses like boilers or generators, natural gas and distillate fuel oil can be substitutes for one another. If the price of one rises relative to the other, some consumers—mostly large industrial facilities or power plants—will switch to the other fuel. In October 1999, wellhead and spot market prices for natural gas were 35 percent and 60 percent higher, respectively, than in October 1998. The increase was due in part to higher prices for competing fuels and in part to expectations of higher natural gas consumption if normal weather patterns developed.

When the weather turned colder in the Northeast in late December 1999, natural gas spot prices for delivery to the New York citygate rose substantially. Early in December natural gas prices were generally below \$3.00 per million Btu, but on December 21 they rose to \$4.11, and they stayed between \$3.55 and \$4.87 per million Btu through December 29. New York citygate prices fell substantially in early January 2000, before rising to \$6.34 per million Btu on January 18. Gas traded above \$6.00 per million Btu on a majority of the days between January 13 and February 13. Gas pipeline capacity into the Northeast was heavily utilized during the period. Several pipeline companies indicated that they had reached new peak levels for service; representatives of one company, Transco, testified that they had no interruptible capacity available on their system from October 20 to the date of the testimony, February 24, 2000.

In general, the ability to bring natural gas into the Northeast is more limited than in other areas of the country. The region receives the majority of its natural gas supplies through a single supply corridor from the Southwest through Pennsylvania and New Jersey. In addition, the Northeast markets are separated from major natural gas supply areas in the U.S. Southwest and western Canada by substantial distances.

Although New York citygate natural gas prices and New York Harbor distillate fuel oil prices are about equally volatile, retail natural gas prices to residential customers appear to be less volatile than retail heating oil prices. For residential natural gas customers, the distribution charges added by local distribution companies (about \$4.00 per million Btu) mute the effects of citygate price volatility. Further, the purchasing and billing

practices of natural gas distribution companies also can obscure short-term price fluctuations.

To address the surge in heating fuel prices, the Federal Government responded with release of funds from the Low Income Home Energy Assistance Program (LIHEAP), to relieve some of the financial burden to low-income households. The surge in distillate home heating oil prices subsided four weeks after it started.

Distillate Fuel Oil Consumption

Among customer types in the Northeast, residential consumers are by far the largest users of distillate fuel oil,⁹ excluding transportation use. In 1997 they accounted for more than two-thirds (68 percent) of the distillate fuel consumption in the region. The entire buildings sector—residential plus commercial users—accounted for more than 90 percent of total distillate fuel oil consumption in the region. Industrial firms and power plants accounted for smaller shares, 8 percent and 2 percent, respectively, on an annual basis. However, while small on an annual basis, the role played by industrial users and power plants can vary significantly during the course of a year.

In the residential sector, distillate fuel oil is mostly used for home heating, primarily in the Northeast. Nationwide, distillate fuel oil accounted for only 8 percent of the energy delivered to the residential sector in 1997, but 73 percent of that consumption occurred in the Northeast. Homes in the Northeast rely on home heating oil for heating because heating oil prices compare favorably to other heating fuels in the region. Even with the occasional surge in heating oil prices, historically, heating with distillate fuel oil in the Northeast has been less expensive than heating with natural gas. An illustrative example, using actual household heating bills, estimated that a house on Long Island saved \$1,800 in fuel costs (in real 1999 dollars) over the past 20 years by continuing to use heating oil rather than switching to natural gas for heating. Although natural gas heating systems tend to be slightly more efficient than comparable oil heating systems, the study assumed for simplicity of presentation that their efficiencies were equal. In that sense, the analysis overestimates the fuel savings that resulted from staying on heating oil. On the other hand, the savings are even larger when the cost of the new gas furnace needed to switch fuels is included.

Over the past 20 years, residential use of distillate fuel oil in the Northeast has declined by 20 percent, and the number of customers using it has declined by 10 percent. Efficiency gains in building shells and furnaces, combined with warmer winters, have contributed to the decline. In addition, the construction of new gas

⁹The consumers are residential, commercial, industrial, and electricity generators.

pipelines into the region has given more consumers the choice between distillate fuel oil and natural gas. Since 1993, however, distillate fuel oil prices have been relatively low, allowing it to maintain a 30-percent share of the heating market in new homes in the region. Projections from the *Annual Energy Outlook 2000 (AEO2000)* show this trend continuing over the next 5 years.

Although generally small in comparison with residential use, distillate fuel oil use in other sectors in the Northeast can have a significant impact on prices, especially when demand is strong and supplies are tight. As in the residential sector, distillate fuel oil use in the commercial sector has declined over the past 20 years, and its use is expected to continue to decline over the next 5 years. In the commercial sector, distillate fuel oil consumption declined from 18 percent of total commercial energy use in the Northeast in 1980 to 12 percent in 1997. Typically, distillate fuel oil is used in the commercial sector for heating, water heating, cooking, and electricity generation. Using 1995 data for buildings whose owners reported that they could switch heating fuels without any new equipment purchases or retrofits, it is estimated that just under a quarter (52 trillion Btu or about 9 million barrels) of the distillate fuel oil used in the commercial sector in the Northeast could be switched to other fuels, such as natural gas.

In the industrial sector, distillate fuel oil is a relatively minor fuel, accounting for only 4 percent of total U.S. industrial fuel consumption in 1997. In the Northeast, the 79 trillion Btu (about 13.5 million barrels) of industrial distillate fuel oil consumption in 1997 accounted for only 3 percent of total industrial fuel consumption. The consumption of distillate fuel oil in the industrial sector in the Northeast is divided nearly equally between manufacturing and nonmanufacturing uses. In the nonmanufacturing segment, where distillate fuel oil is used primarily for on-site transportation (moving things around the plant and farm sites), it is unlikely that a significant portion of it could be easily switched to another fuel. Within the manufacturing segment in the Northeast the key uses of distillate are as a boiler fuel (37 percent), as a process fuel (32 percent), for heating and ventilation (12 percent), and for on-site transportation (9.8 percent). Using 1994 data,¹⁰ it is estimated that approximately 24 percent (9 trillion Btu or about 1.6 million barrels) of the distillate fuel oil used in the Northeast manufacturing segment could be switched quickly to other fuels without equipment purchases or retrofits. Over the next 5 years, distillate fuel use in the Northeast industrial sector is expected to increase by just over

1 percent annually, but the rate could vary depending on oil prices.

Oil plays a small role in the electricity generation sector, and generation from distillate fuel oil is a very small portion of that. In 1998, oil accounted for less than 3.4 percent of total U.S. electricity generation, and generation from distillate fuel oil accounted for only 0.4 percent of total generation. Overall, the share of generation from oil has been declining for some time, as natural gas has become more available and the efficiency of new natural gas generating technologies has continued to improve. This trend is expected to continue over the next 5 years. Even in the early 1980s, when oil-fired generation was more important, the share from distillate fuel oil never exceeded 1 percent. The vast majority of the oil used for electricity generation is residual fuel oil.

In the Northeast the power generation sector is more dependent on oil than in other parts of the country. For example, in New England 24 percent of generation comes from oil. Even in these more oil-dependent regions, however, distillate fuel oil plays a small role—only 6 percent of total oil generation. Distillate fuel oil is typically used in small amounts in steam plants for flame control and in relatively inefficient combustion turbines and internal combustion engines when the demand for electricity is high and other fuels are unavailable to generate electricity. If all the distillate fuel oil use in the power generation sector in the Northeast were switched to another fuel—most likely, natural gas—it would amount to about 35 trillion Btu (6.1 million barrels) of distillate fuel oil. Under more severe weather conditions, as experienced in December 1989, the annual consumption could rise to as much as 41 trillion Btu (7.1 million barrels). It is unreasonable to assume, however, that all of that fuel use could be quickly switched. Some of the plants that burn distillate fuel oil are not dual-fired and may not have easy access to natural gas.

In summary, on an annual basis, if all the distillate fuel oil used in the Northeast commercial, industrial, and electric power sectors that could conceivably switch (even with equipment purchases and retrofits) were replaced with another fuel, total distillate fuel oil use would be reduced by 33.6 million barrels. However, as discussed earlier, it is unlikely that all of this distillate fuel oil use could be switched to another fuel. Looking only at the quantity of consumption that is estimated to be reasonably switchable,¹¹ the total that could be made available for residential use is only 13.1 million barrels.

¹⁰Energy Information Administration, *Manufacturing Consumption of Energy 1994*, DOE/EIA-0512(94) (Washington, DC, December 1997).

¹¹Because distillate fuel oil consumption for electricity generation in periods other than the winter heating season does not adversely affect home heating oil prices, it is excluded from the "reasonably switchable" calculation.

We believe this to be a high estimate of the distillate fuel switching potential in the Northeast.¹² In addition, as is explained later, the reduction in nonresidential distillate fuel use may not lead to a permanent increase in supplies available for home heating, and the volatility in the market may not be reduced.

Because the use of distillate fuel oil varies significantly across the seasons, it is more important to look at the potential for reducing nonresidential sector use during the winter months, when the use of distillate fuel oil for heating is greatest and rapid price increases are most likely. Using historical information about the distribution of seasonal use of distillate fuel oil in the commercial, industrial, and electricity generation sectors, it is estimated that the volume of their winter season switchable distillate use could be as high as 133,000 barrels per day—about 11 percent of residential heating oil use in the winter (Table ES1).

Because the Northeast's residential sector is highly dependent on home heating oil, whose prices are normally highest in the winter, colder-than-normal winter weather will further increase the demand and prices for heating oil. If, in addition, heating oil resupply problems are coupled with additional distillate fuel oil demand of 100,000 to 133,000 barrels per day from interruptible and/or fuel-switchable customers, home heating oil prices could rise sharply, as they did in the winter of 1999-2000.

Switching or Converting From Distillate Fuel Oil

Homeowners can be given increased access to distillate fuel oil or, at least, protected from steep price runups in future winters. Actions that may help include: encouraging distillate fuel oil users outside the residential sector to use other fuels, particularly natural gas; improving the operation of the Northeast distillate fuel oil market (for example, with better planning tools, more local storage capacity at the wholesale, retail, and consumer levels, and/or better delivery channels); and providing more direct assistance to consumers. Each of these approaches has practical limits, however, and their costs would have to be borne by consumers and taxpayers.

Natural Gas Market Effects

Possible changes to natural gas use considered in this report include (1) keeping large consumers with "switchable" equipment (that can use either fuel) from moving to distillate fuel oil when gas prices are high; and (2) in combination with keeping switchable firms on natural gas, moving some of the "distillate-only" capacity¹³ to natural gas. In this analysis it is estimated that, over a 3-month winter period (contiguous December, January, and February), the maximum "average-day" switchable fuel consumption¹⁴ is equivalent to about 133,000 barrels of distillate fuel oil per day. No

Table ES1. Estimated Distillate Fuel Oil Switching and Conversion Potential in the Northeast by Sector

Sector	Maximum Annual Switchable Volume (Million Barrels)	Daily Average Daily Switchable Volumes in December-February (Thousand Barrels per Day)	Conversion Potential If All Distillate Use by Large Users Were Converted to a Different Fuel (Million Barrels)
Commercial.....	8.6	86	20.0
Industrial.....	1.6	16	6.5
Electricity Generation ^a	2.9 ^b	31 ^b	7.1
Total.....	13.1	133	33.6

^aBecause usually only one-third of distillate consumption for electricity generation occurs in the winter months (December, January, and February), the consumption shown is the estimated winter use portion, assuming that 40 percent of the year's distillate use might occur in the winter of an unusual year.

^bWinter only.


Source: Tables in Chapter 3 of this report.

¹²The methodology used to derive the maximum distillate fuel that is switchable in the short run intentionally overestimates the actual amount. Because actual consumption data for January and February 2000 are not available, the switchable amount was calculated by sector (commercial, industrial, and electric generation) from available data based on normal weather and adjusted to approximate the conditions of the winter of 1999-2000. Taken together, it is estimated that distillate consumption during an unusually cold 3-month winter period could be as much as 42 percent higher than consumption during a normal winter.


¹³"Distillate-only" means that the equipment can only burn distillate fuel oil.

¹⁴Some establishments have separate gas and distillate (or residual fuel) boilers to serve the same energy needs, choosing the fuel and equipment to be operated on the basis of relative fuel costs.

Exhibit 4



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NEWS ANALYSIS

Not-So-Infinite Gas Supply Pushes Prices, Demand Up

■Energy: With year-round usage increasing, the need for new pipelines is crucial.

By CHRIS KRAUL, Times Staff Writer

To the surprise of the energy industry and the chagrin of Californians, natural gas has suddenly become the hot global commodity of the moment—a key culprit in the state's summer energy crisis and a costly, sought-after fuel that has launched a rush of new exploration and investment across the continent.

Painful ironies abound. For 15 years, natural gas was so plentiful in the U.S. that businesses and consumers took it for granted, seeing it as a virtually infinite resource that would remain low-cost indefinitely. Cheap gas was an article of faith in the deregulation of California's electricity market in 1996 and the consumer benefits its proponents touted.

But this year, the supply bubble finally burst. Gas prices have spiked to all-time highs, inflating the cost of gas-generated electricity and touching off California's summer power crisis. There is no relief in sight: Utilities are warning of winter scarcities that could boost heating bills as much as 35% and continue to turn up the heat on wholesale electricity costs.

The prescribed cure for the state's electricity woes—a covey of gas-fired electric power plants—will bring its own set of problems. The natural-gas-fired plants to be built in coming years will suck up enormous amounts of fuel, so much so that analysts aren't sure U.S. and Canadian wells can supply them all, a fear that is also driving gas futures prices higher.

Even though existing wells are pumping at maximum capacity and drillers are marshaling every resource to find new supplies—a cyclical response that typically brings markets back to earth—industry watchers fear that prices could remain high for months, if not years.

"We don't think there is necessarily enough supply of gas to keep the pipelines full," said Mark Gurley, vice president of trading at Aquila Energy of Kansas City, Mo., a unit of Utilicorp. Referring to declining U.S. production and the difficulty in accessing new reserves, Gurley said: "The problem is the low-hanging fruit has been picked."

More than 800 offshore and land-based drill rigs are looking for gas across the U.S., twice the number in March 1999. Their operators are encouraged not just by the fact that gas now sells for \$5.18 per million British thermal units—three times the \$1.60 futures price in March 1999—but that chances are good that such prices will hold up, despite the current feverish exploration activity.

Those expectations are driving Big Oil's plans for as many as three new billion-dollar gas pipelines to the Lower 48 from Alaska's North Slope and Northwest Canada. Two liquid-natural-gas processing plants on the East Coast that have been in mothballs for 10 years are now being recommissioned to receive LNG imports, a vote of confidence that gas prices will at least stay over \$3 per million BTUs, industry sources said.

Even analysts such as Stuart Wagner of Petrie Parkman & Co. investment bankers of Denver, who believe prices will moderate over time, warn consumers not to expect much relief soon: "We have a long-term crunch ahead of us. We have been depleting the gas resources faster than ever, and we haven't been spending much money finding new ones."

Said William McCormick, chief executive of CMS Energy in Dearborn, Mich., whose pipelines deliver 5% of all U.S. gas: "There will be a lag between the time people start drilling and you get the added production that the market needs. And, frankly, we are going to have to see drilling activity above where we are before it makes a real impact."

What happened to shake up a market that for so long was so boringly placid and cheap?

Much of the gyrations resulted from a bigger rise in demand for gas-generated electricity than anyone in the industry foresaw. Boosted by the Internet and telecommunications, electricity usage is growing as much as 5% annually in some parts of California and elsewhere in the country--twice the rate planners were expecting just a couple of years ago, said Salomon Smith Barney analyst Raymond Niles.

Virtually all the incremental power demand is being fulfilled by turbines that burn natural gas--an industry trend that has been going on for 10 years now, fed by the environmental benefits of the relatively clean-burning fossil fuel and technological innovations that brought enormous gains in generation efficiency.

"We knew demand was rising, but we didn't have an appreciation for how much, or that things like cell phones would take as much electricity as a refrigerator," said Donato Eassey, energy analyst at Merrill Lynch in Houston. "We missed the point of the extent of technological growth and the demands that it would put on the system."

To meet that demand--and to counter the drop-off in imports of alternative sources such as hydroelectric and nuclear power--Southern California Gas Co. and other utilities are seeing enormous increases in natural-gas use. This year through August, the utility "moved" 1.1 trillion cubic feet of gas to its customers, up 10% from the same period last year.

The utility's gas shipments to its power plant customers are up a staggering 67% so far this year, said Lee Stewart, an executive with the company, a unit of Sempra Energy of San Diego.

Now, more gas-fired power plants are planned around the country, including at least 50 in the western U.S. capable of producing some 40,000 megawatts of power, which is equal to about 80% of California's consumption on a summer day. Such plants are the biggest reason gas consumption is expected to rise 50% from current levels by 2010, after rising 28% the previous 10 years.

Keeping pressure on prices is the fact that gas demand in California is now a year-round phenomenon. Usage used to peak in the winter, thus enabling utilities to store gas in the summertime, which calmed markets. But higher temperatures and growing air-conditioning demand have caused Sempra Energy's peak-demand day for gas this summer to exceed last winter's top peak-demand day for the first

time ever.

The year-round demand--compounded by the need to replenish natural-gas storage depleted by the effects of a pipeline explosion last month in New Mexico--has kept the price pressure up in the West at a time it normally eases.

Added demand comes at a time when natural-gas production has been declining because of a drop-off in drilling in recent years.

From 1980 through the late '90s, the U.S. enjoyed a natural-gas "bubble," a state of oversupply that kept prices low, even when crude oil spiked upward, and forced many gas companies to cap wells. But the increase in consumption and decline in production over the last year and a half have finally caused that bubble to burst, said Ron Barone, an energy analyst with PaineWebber in New York.

"There is a lot of speculation in the industry that it will be difficult for drillers and producers to meet demand 10 years from now because consumption is going up so much," said Bill Wood, chief natural-gas forecaster at the California Energy Commission in Sacramento.

Amy Jaffe, senior energy advisor at the James A. Baker III Institute for Public Policy at Rice University in Houston, said there are "remedies down the road" in new pipelines from Canada and huge gas reserves in Mexico.

"But the industry has changed," she said. "When you see an Enron buy up liquid-natural-gas tankers, companies propose these huge pipelines, you know that people see the economics as attractive."

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U.S. Refining Capacity 1996-2000

